

FIG. 2

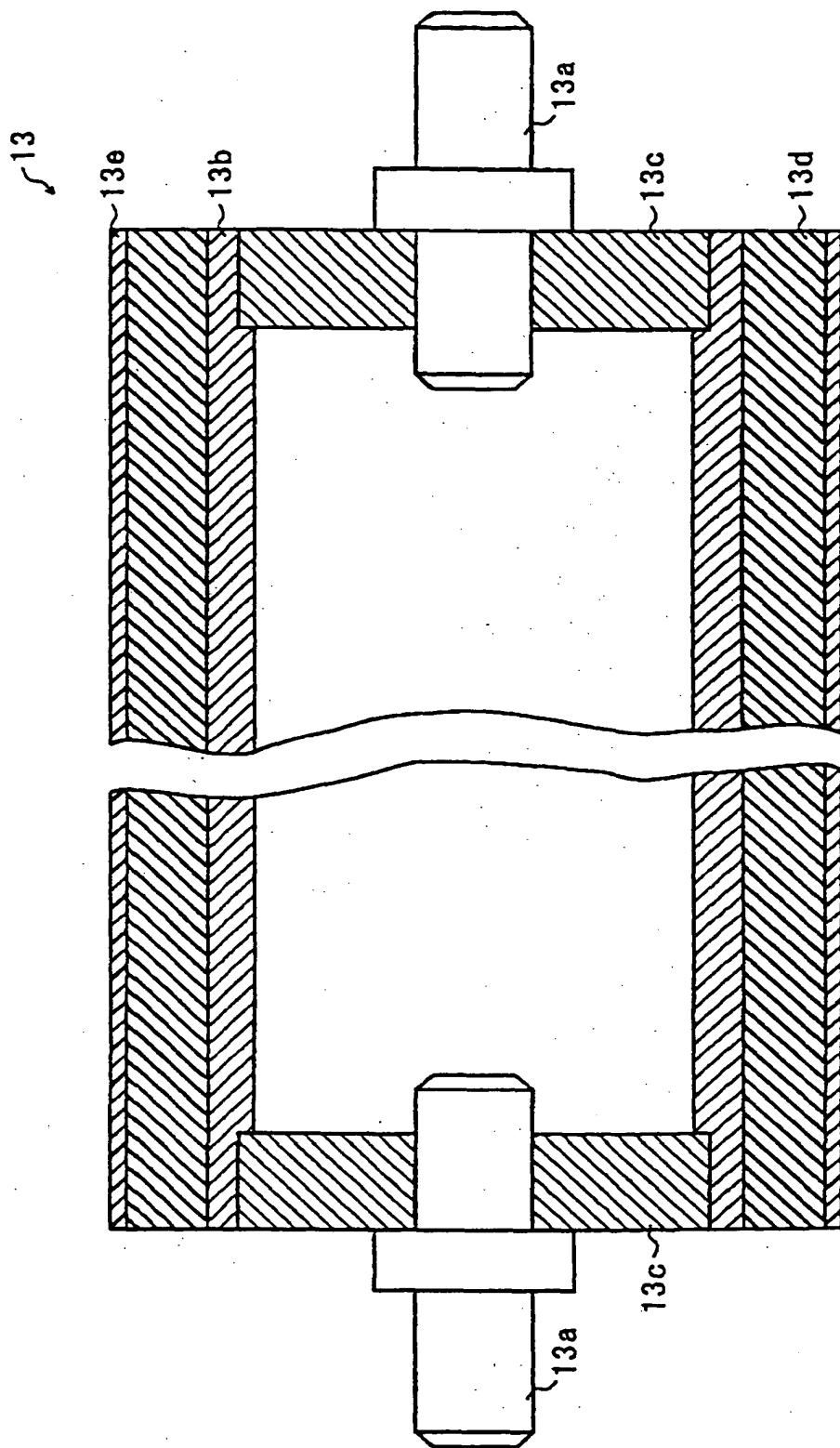
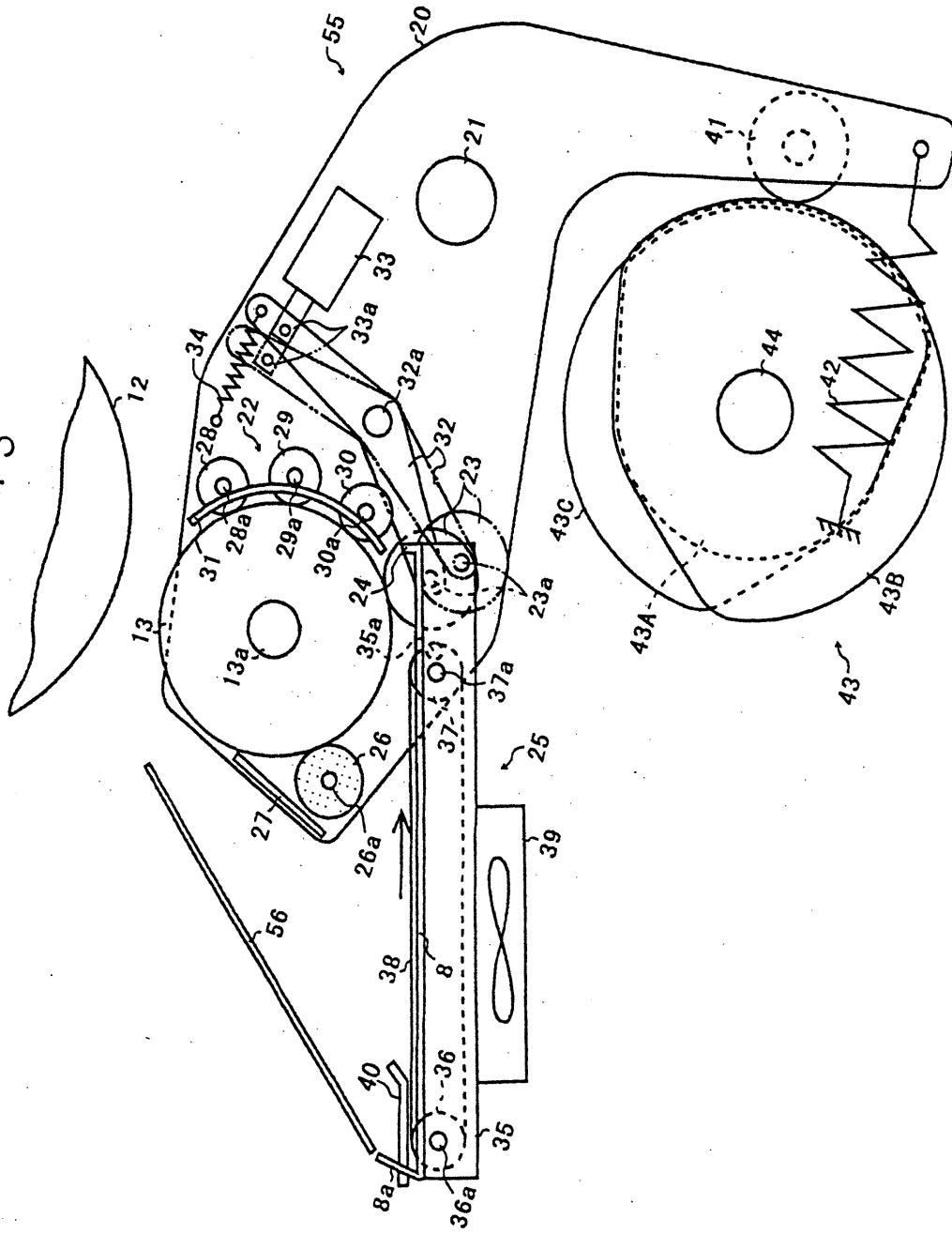


FIG. 3



OBLON, SPIVAK, ET AL
DOCKET #: 240831US3
INV: Mitsuo SATO, et al.
SHEET 3 OF 52

FIG. 4

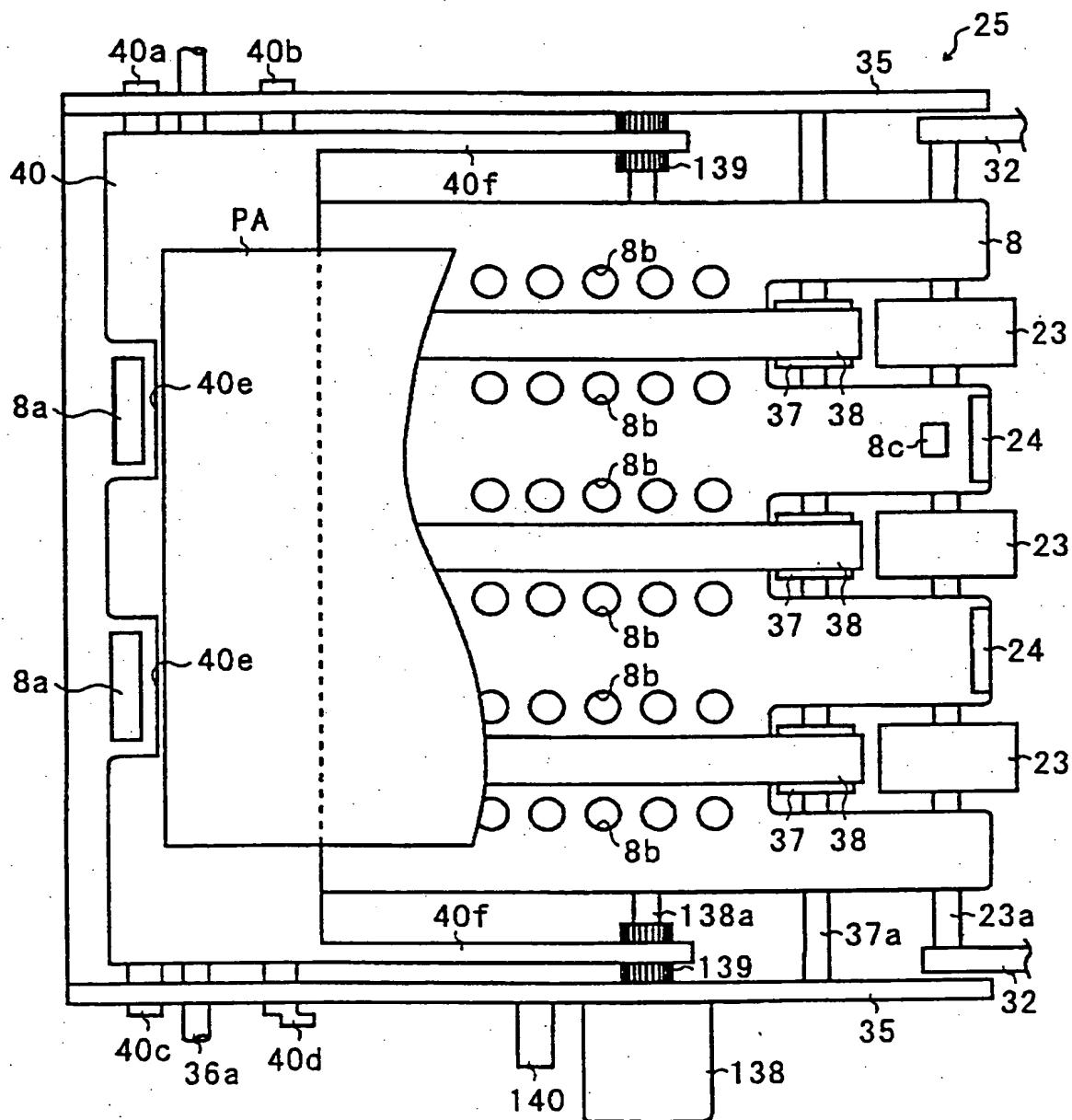


FIG. 5

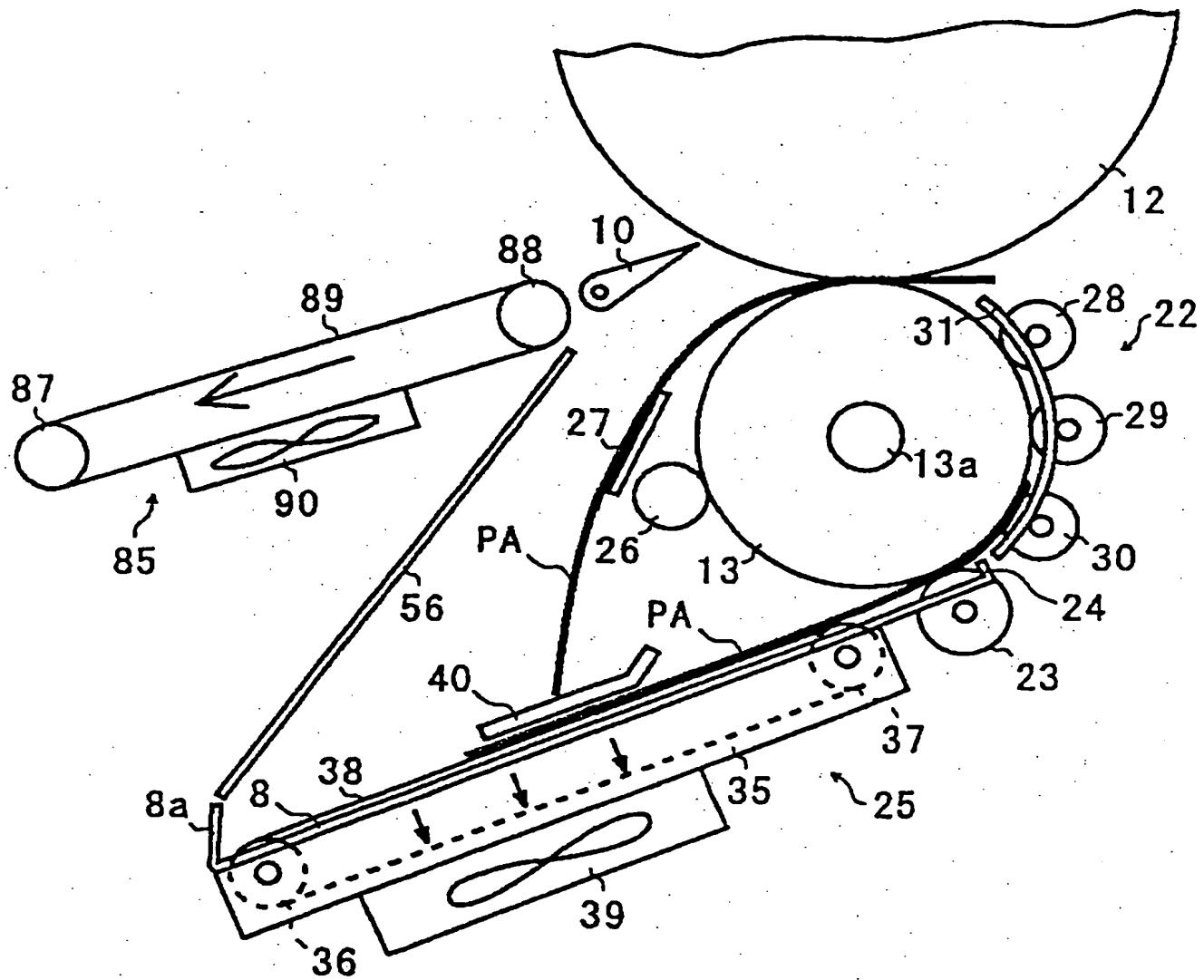


FIG. 6

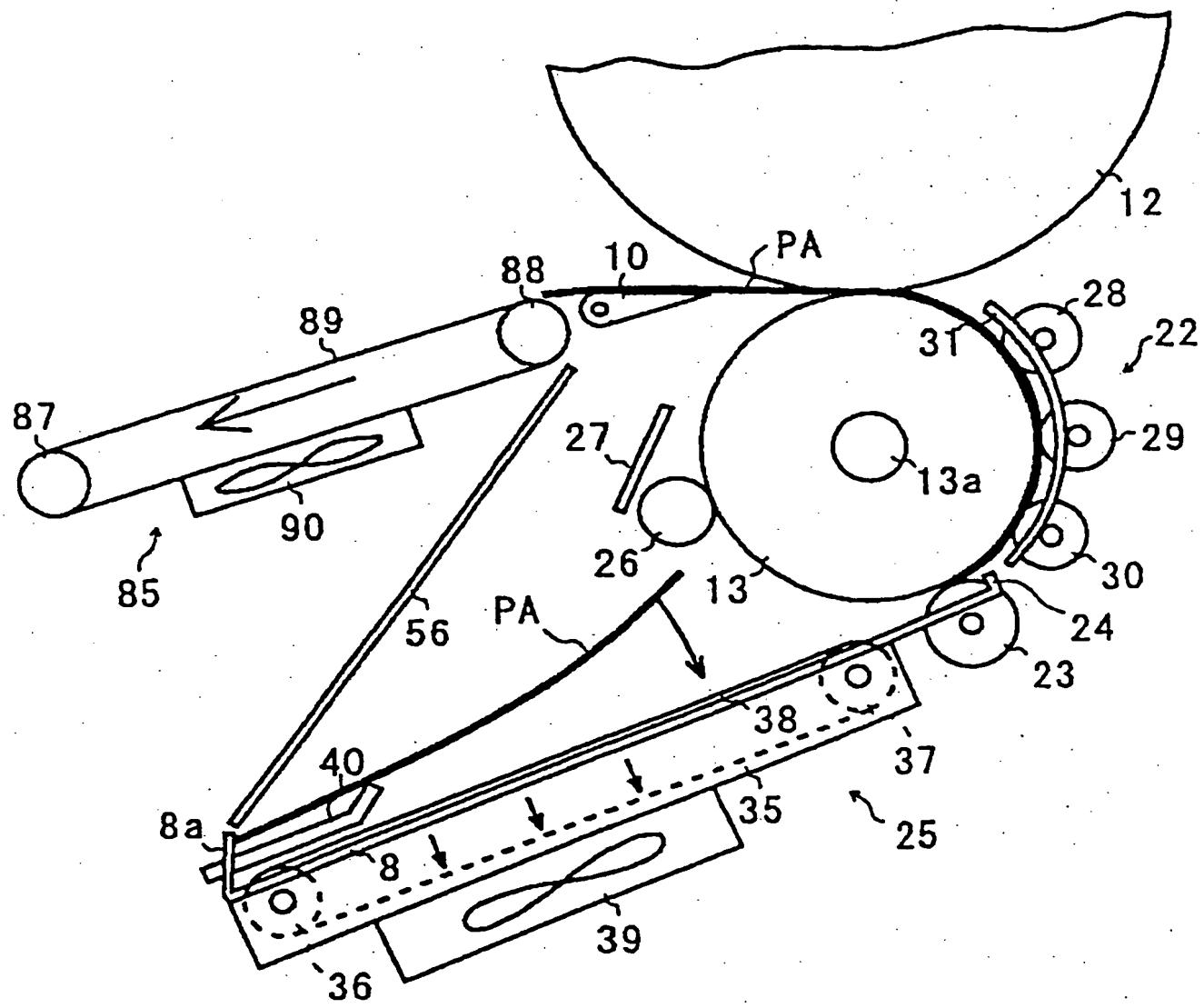


FIG. 7

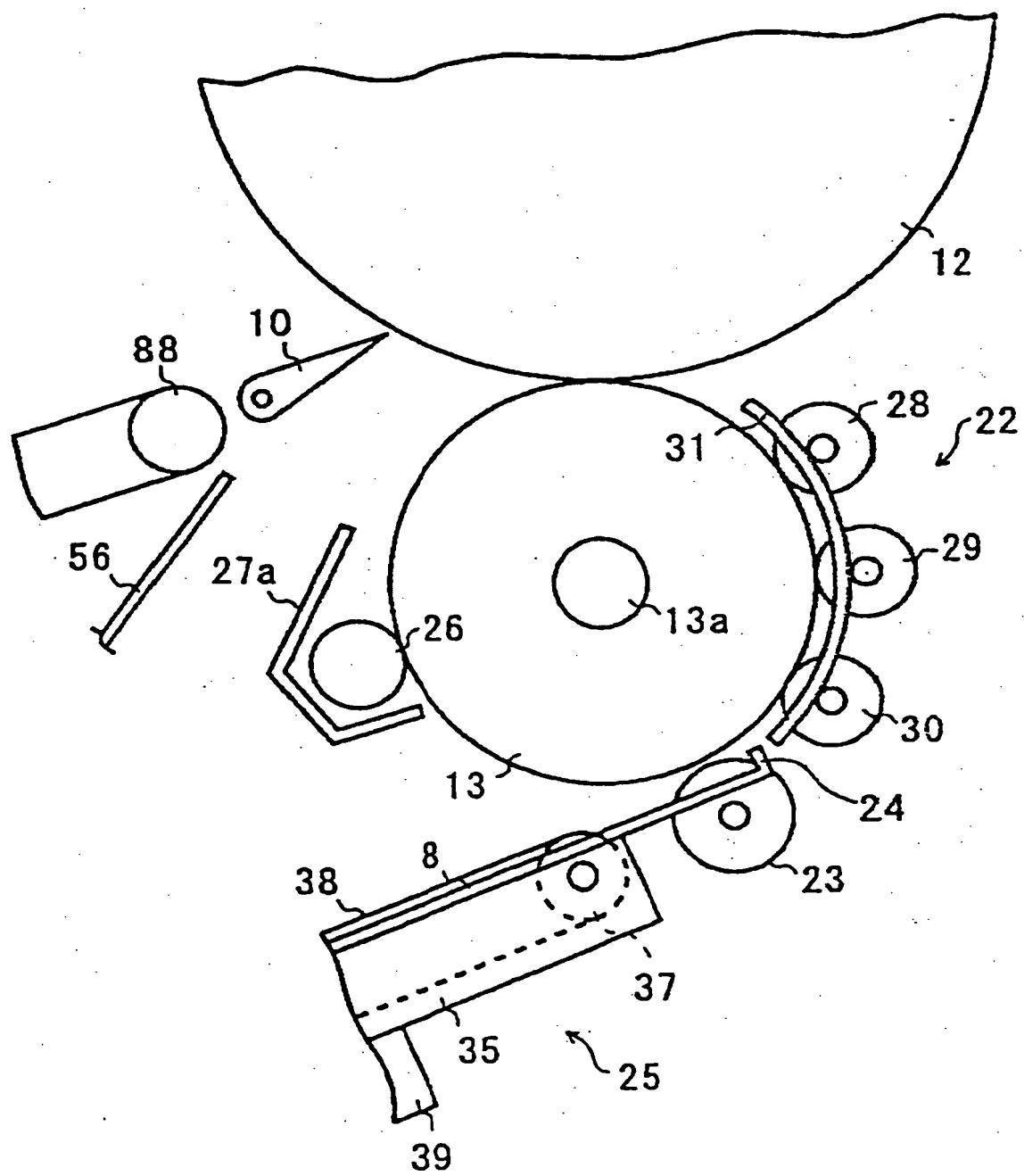
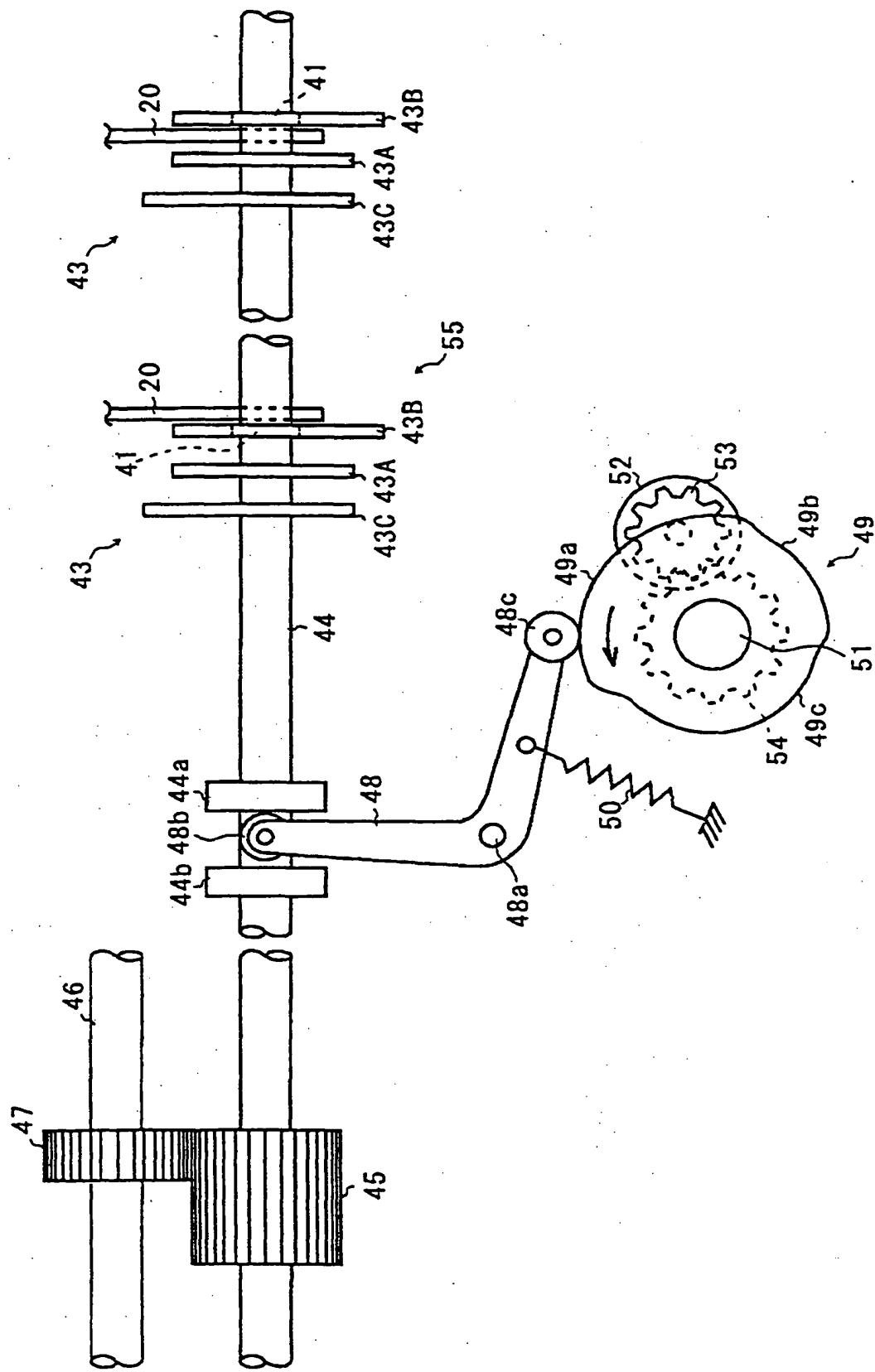


FIG. 8



OBLON, SPIVAK, ET AL
DOCKET #: 24083JUS3
INV: Mitsu SATO, et al.
SHEET 2 OF 52

F/G. 9

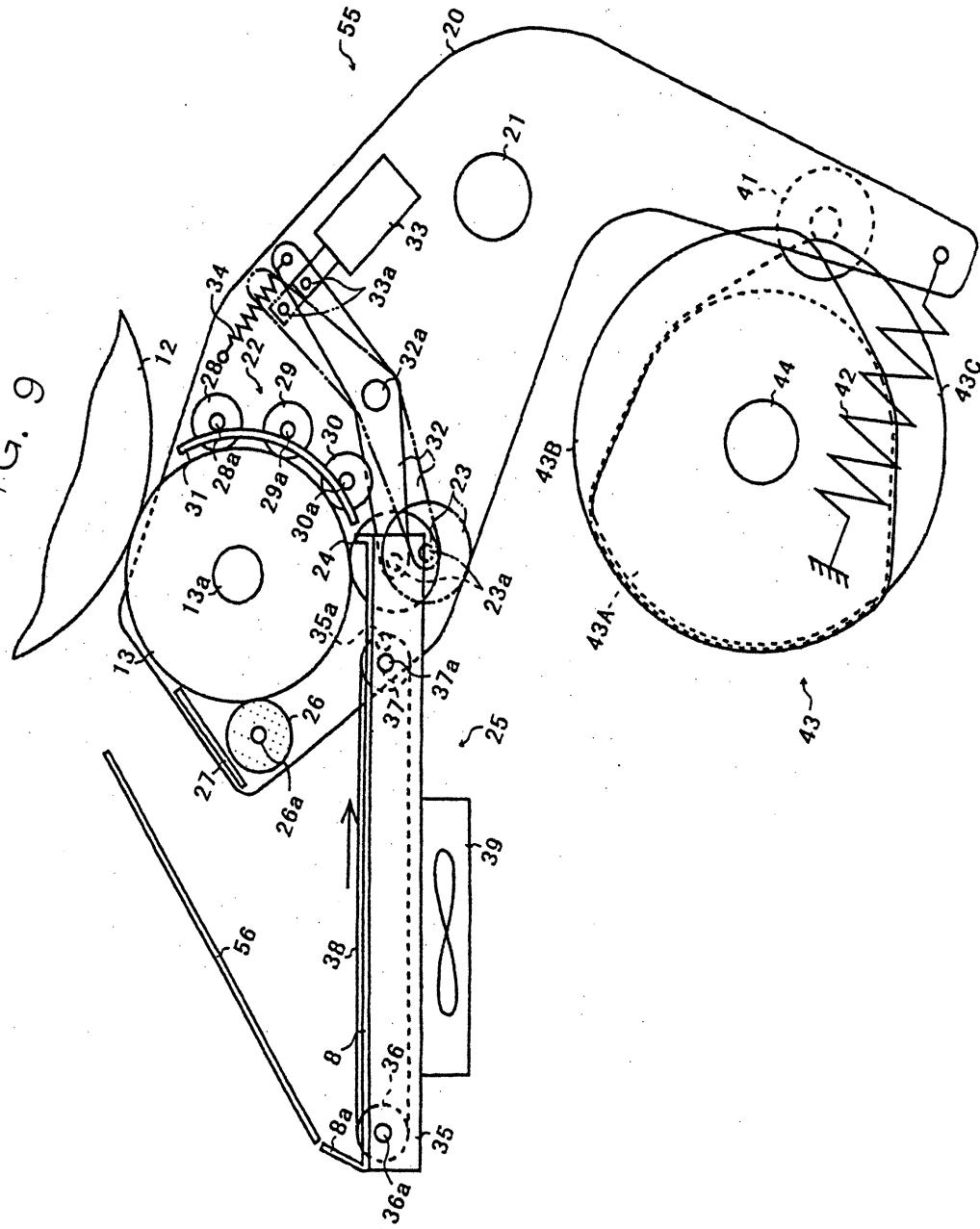


FIG. 10

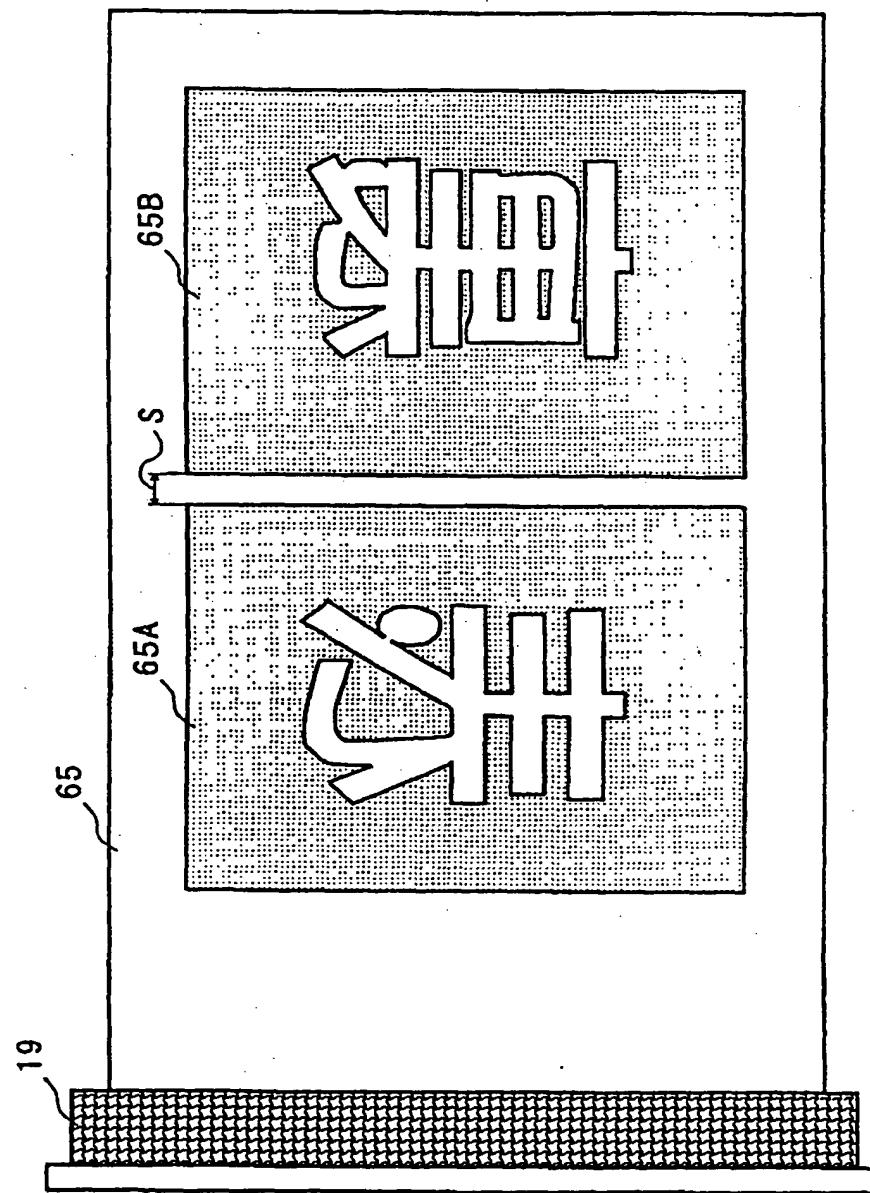


FIG. 11

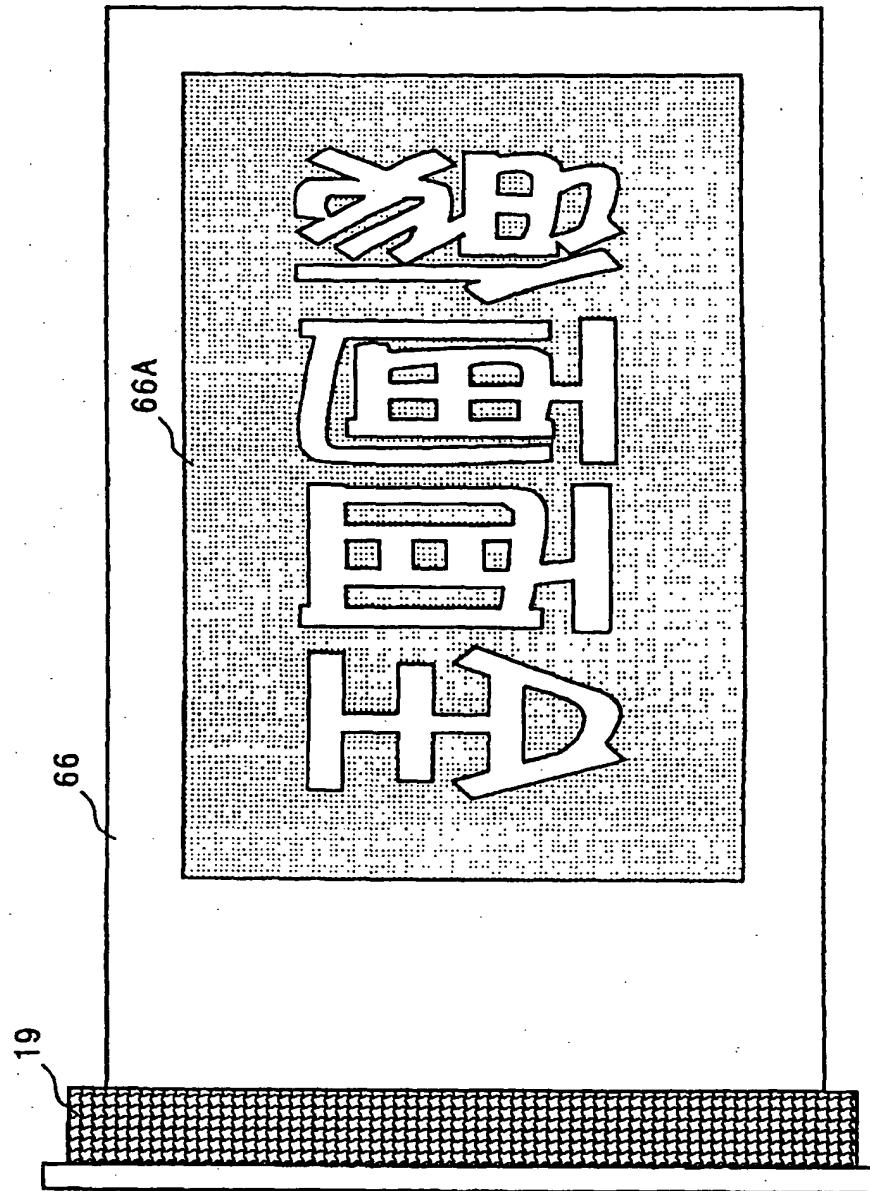
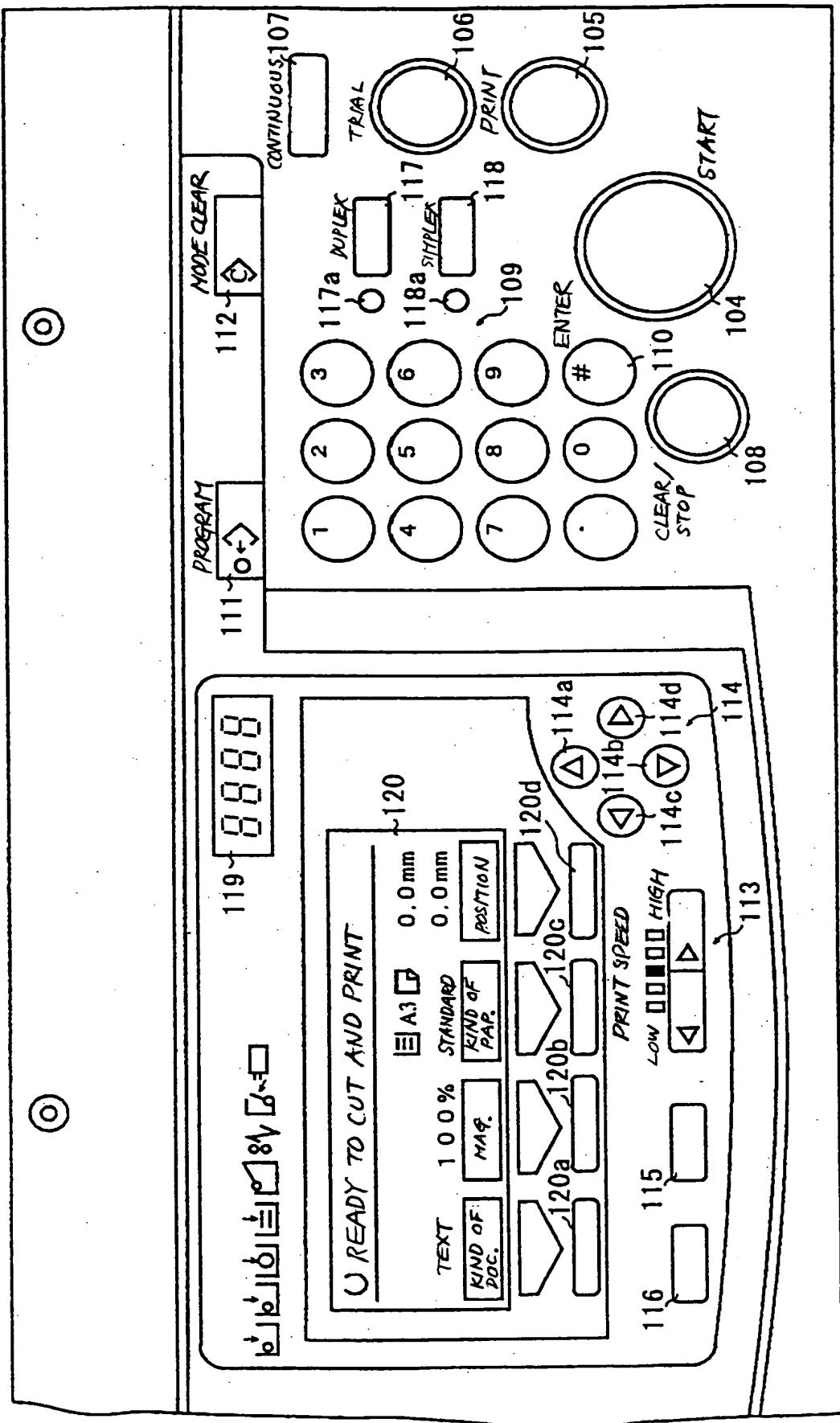


FIG. 12

103



13
FIG.

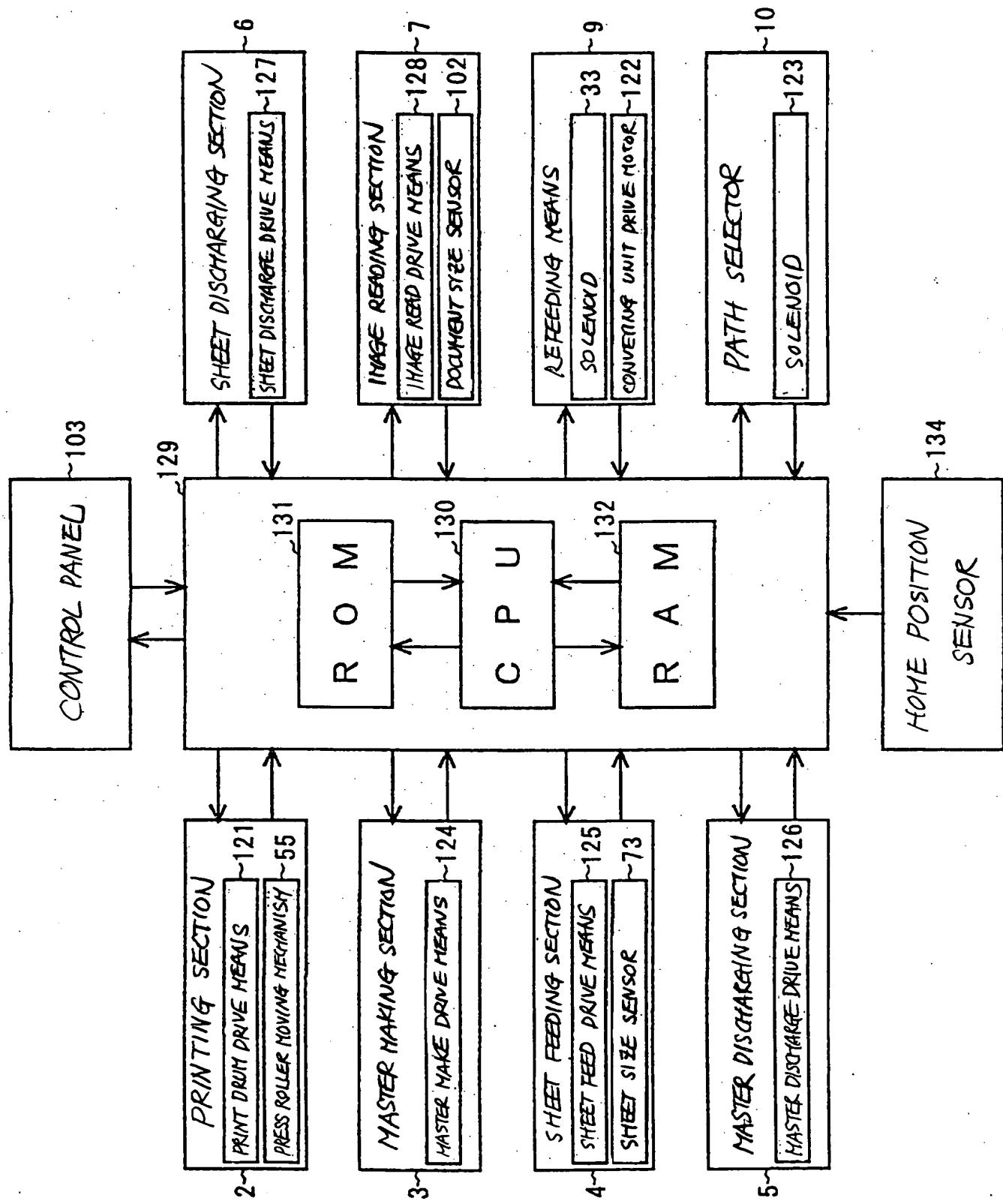


FIG. 14

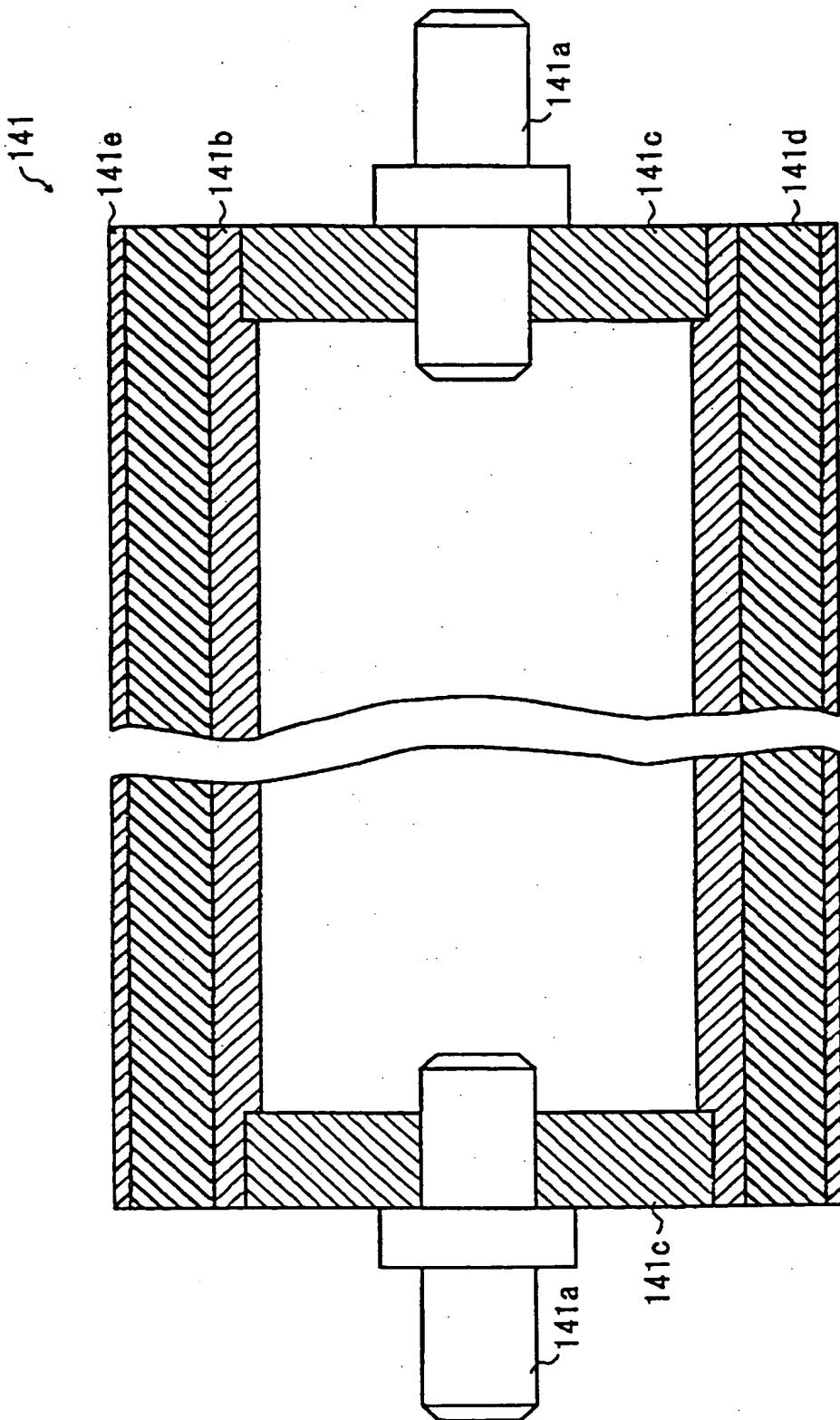


FIG. 15

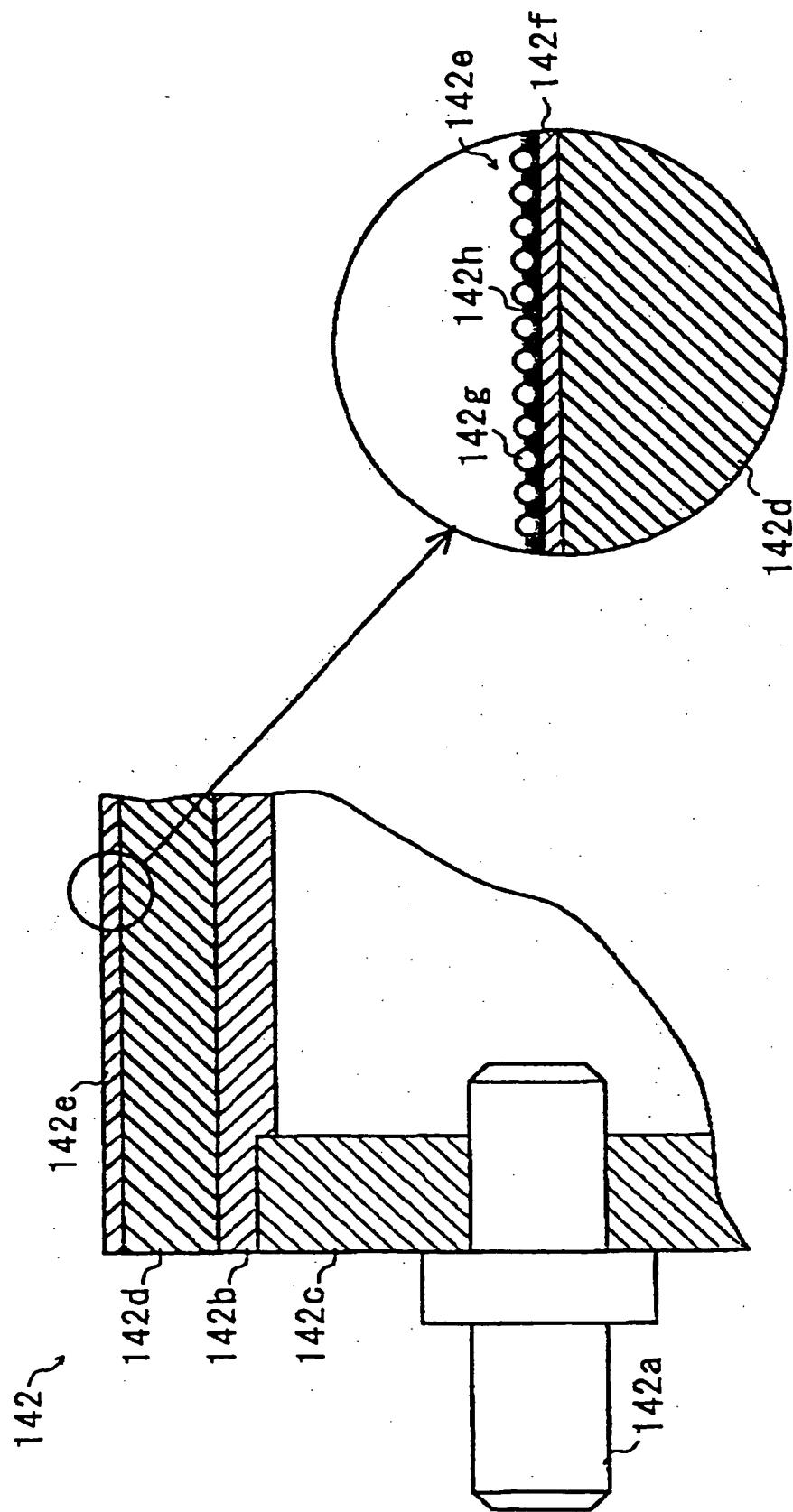


FIG. 16

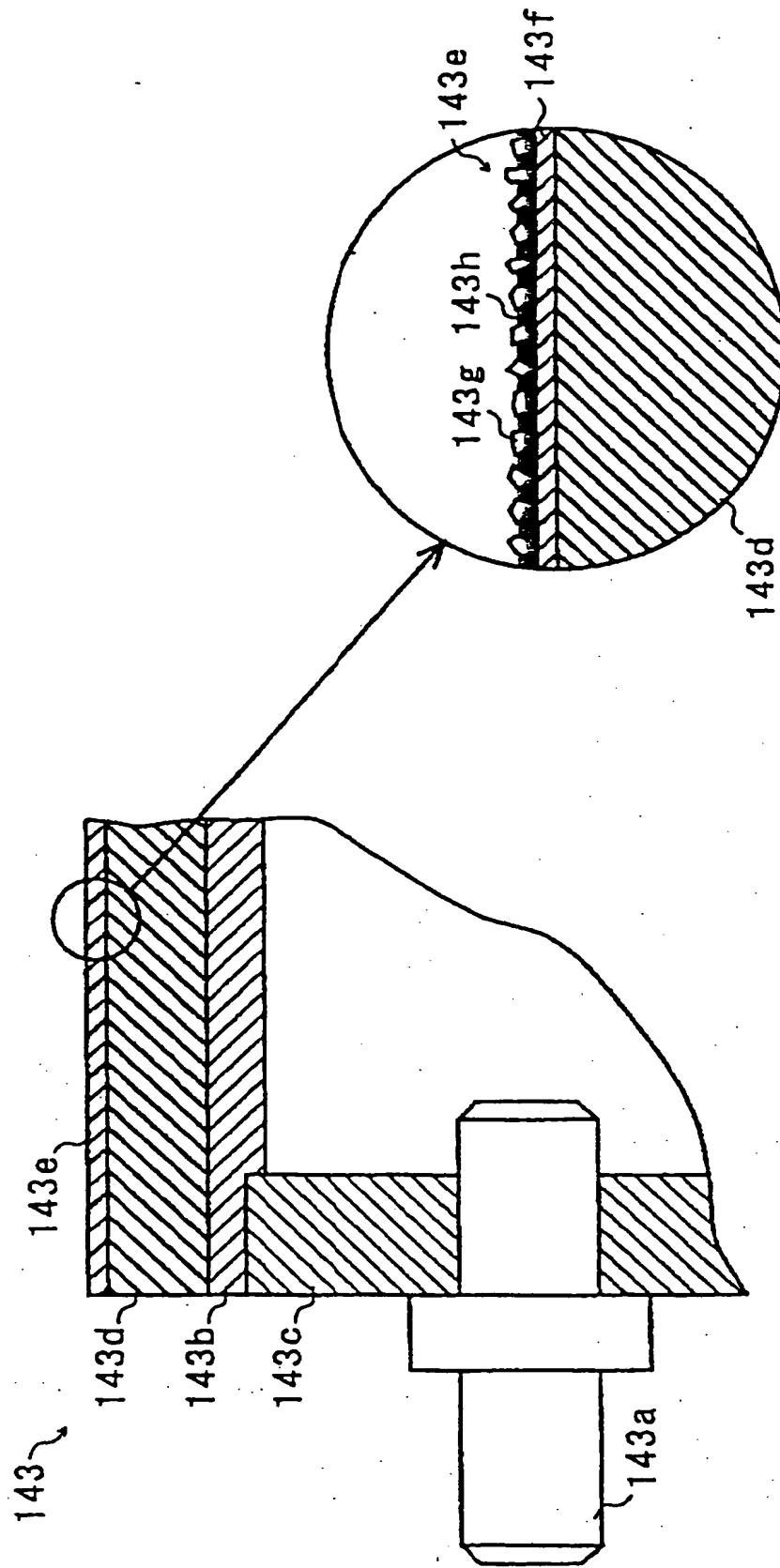


FIG. 17

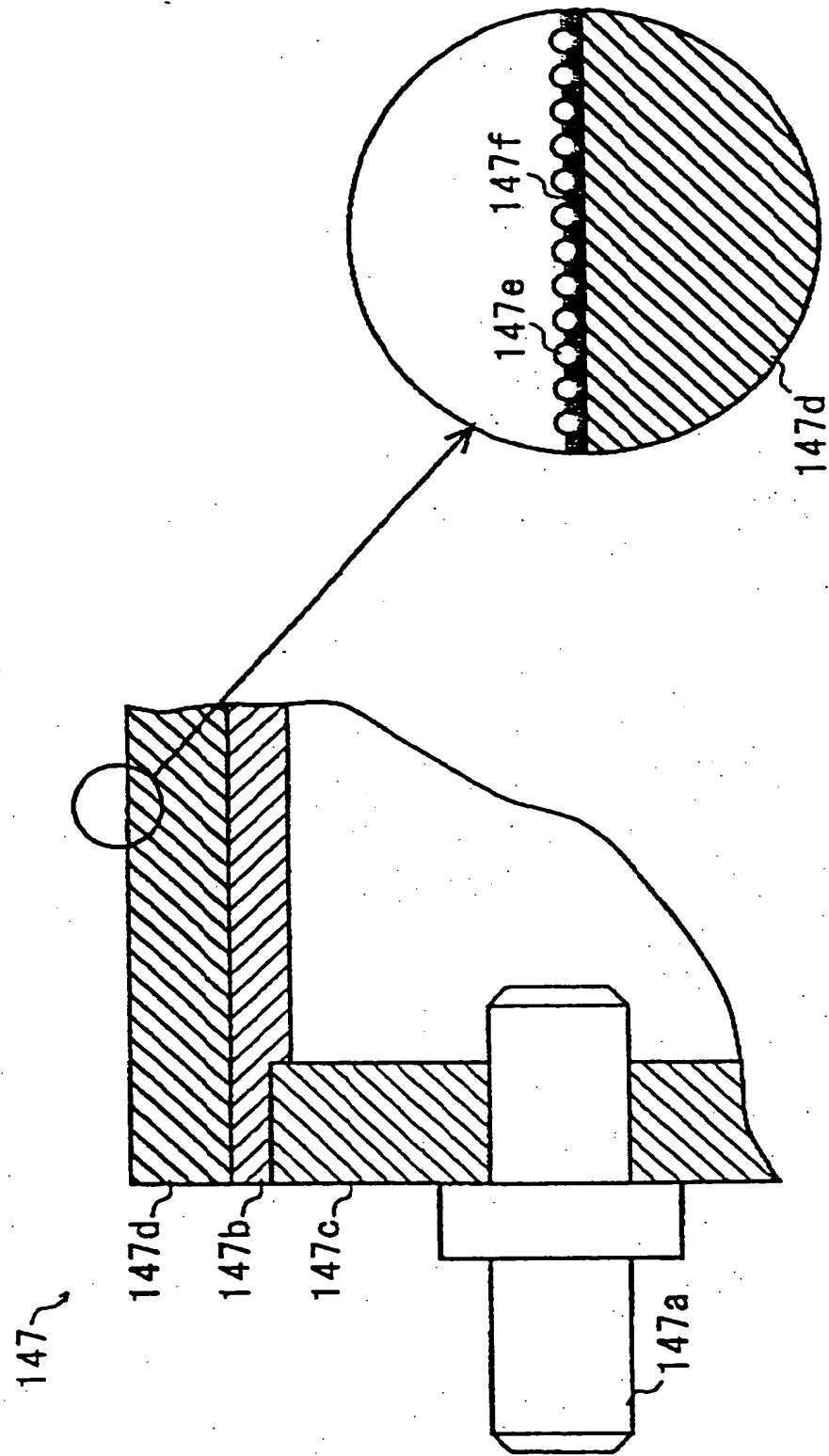


FIG. 18

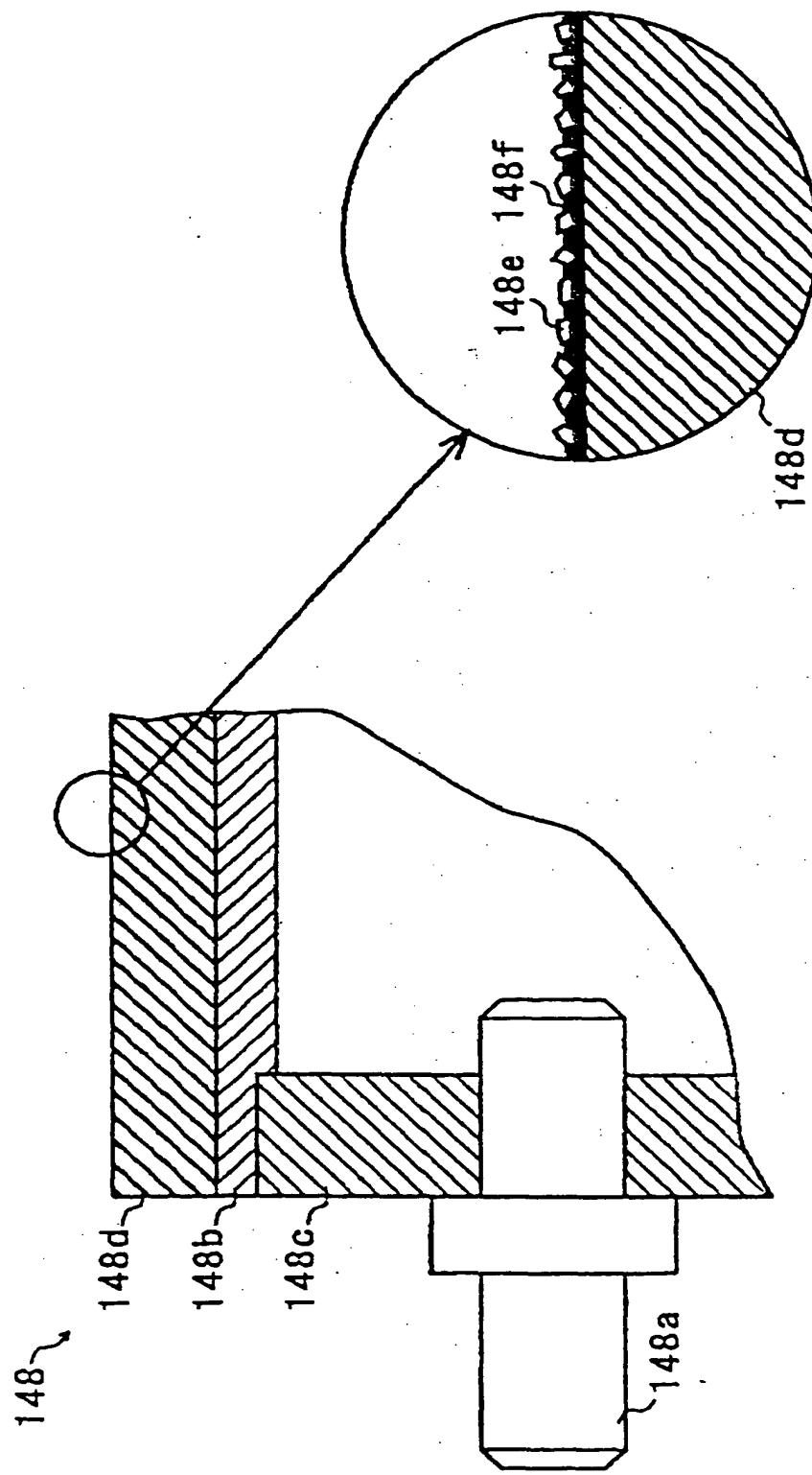


FIG. 19

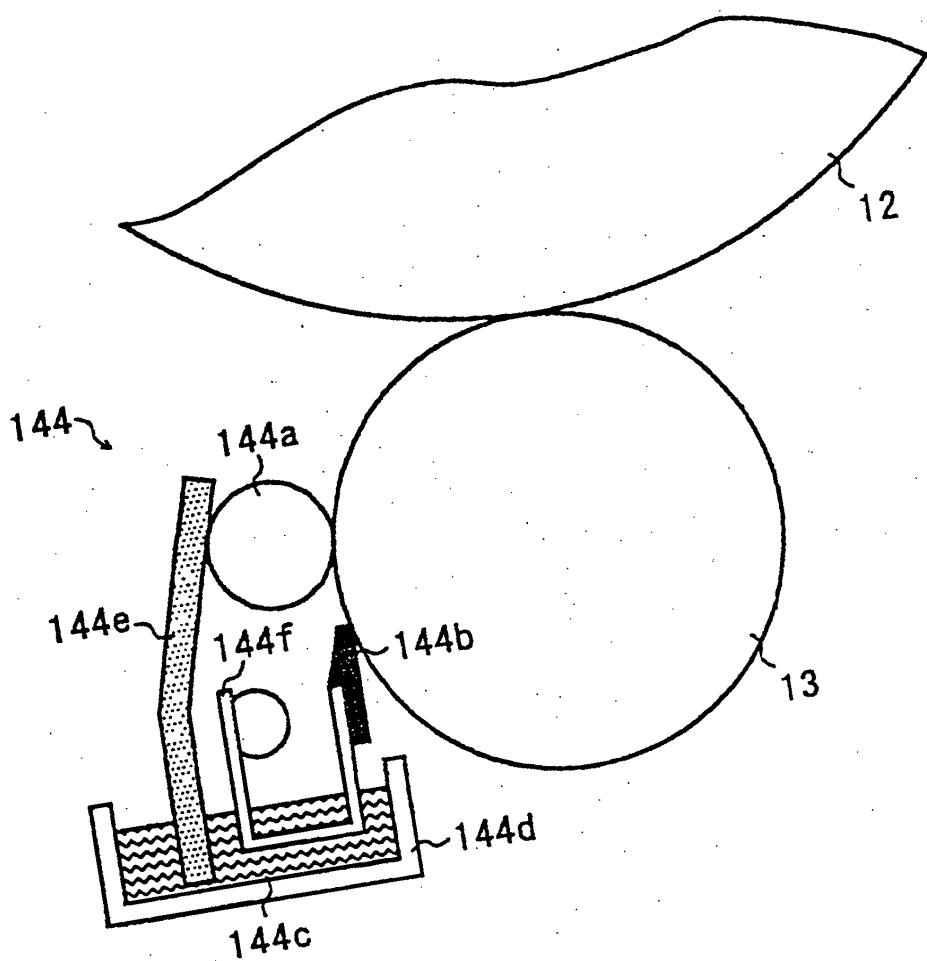


FIG. 20

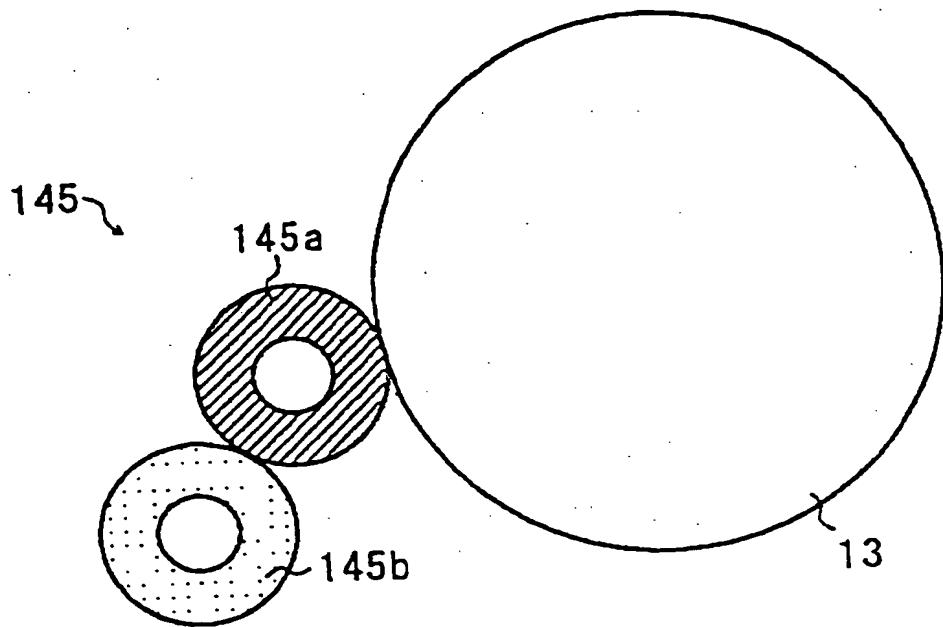


FIG. 21

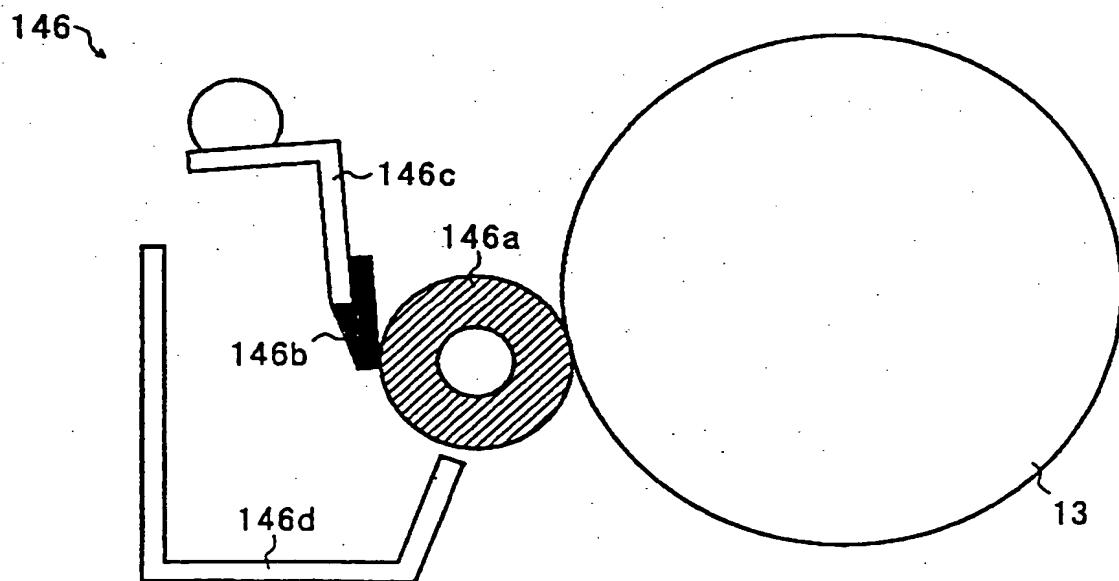


FIG. 22

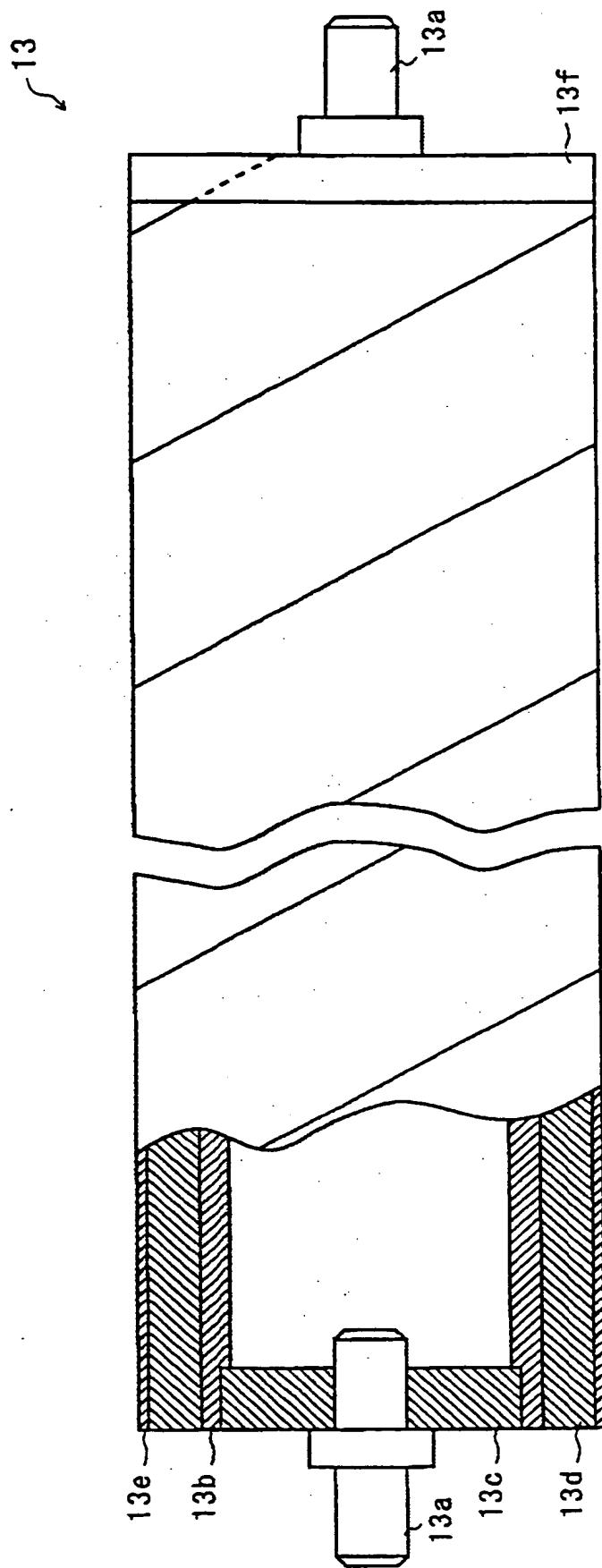


FIG. 23

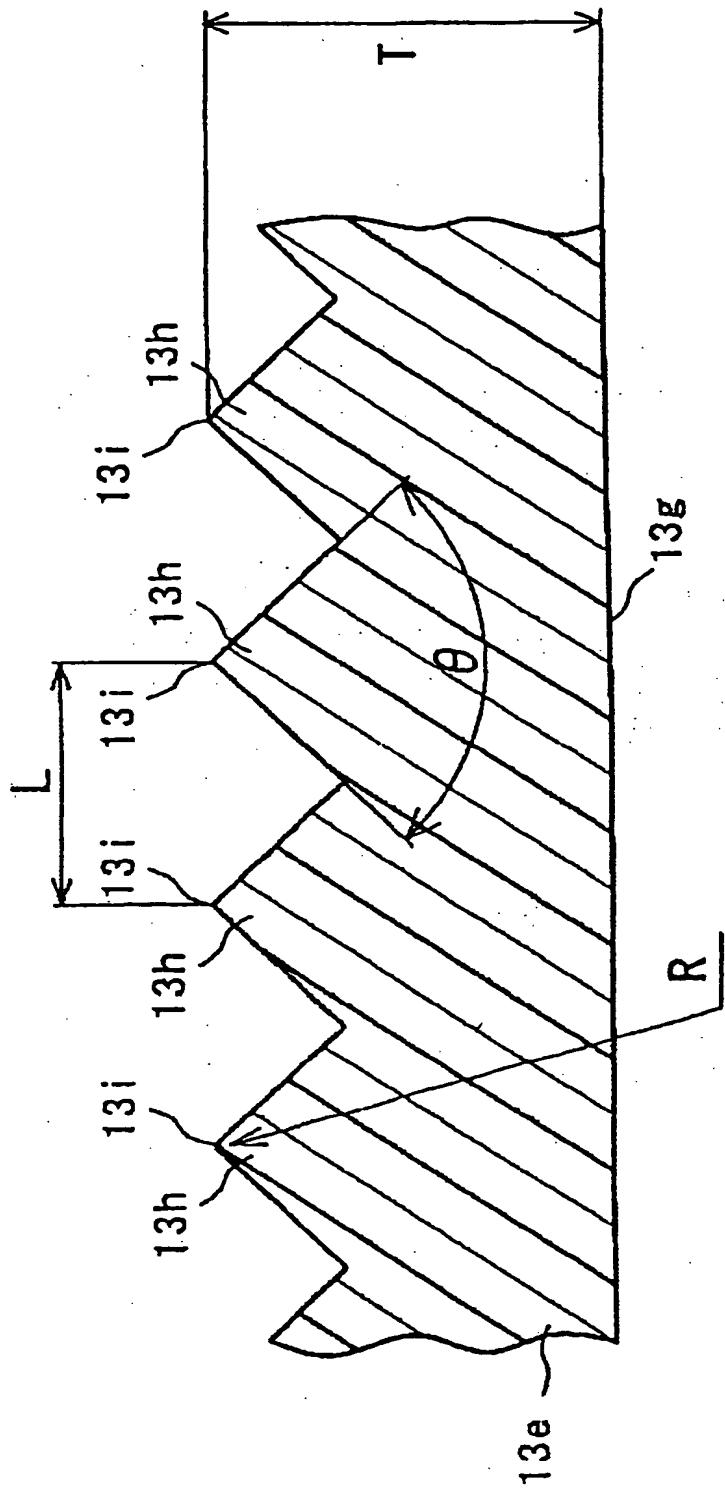


FIG. 24

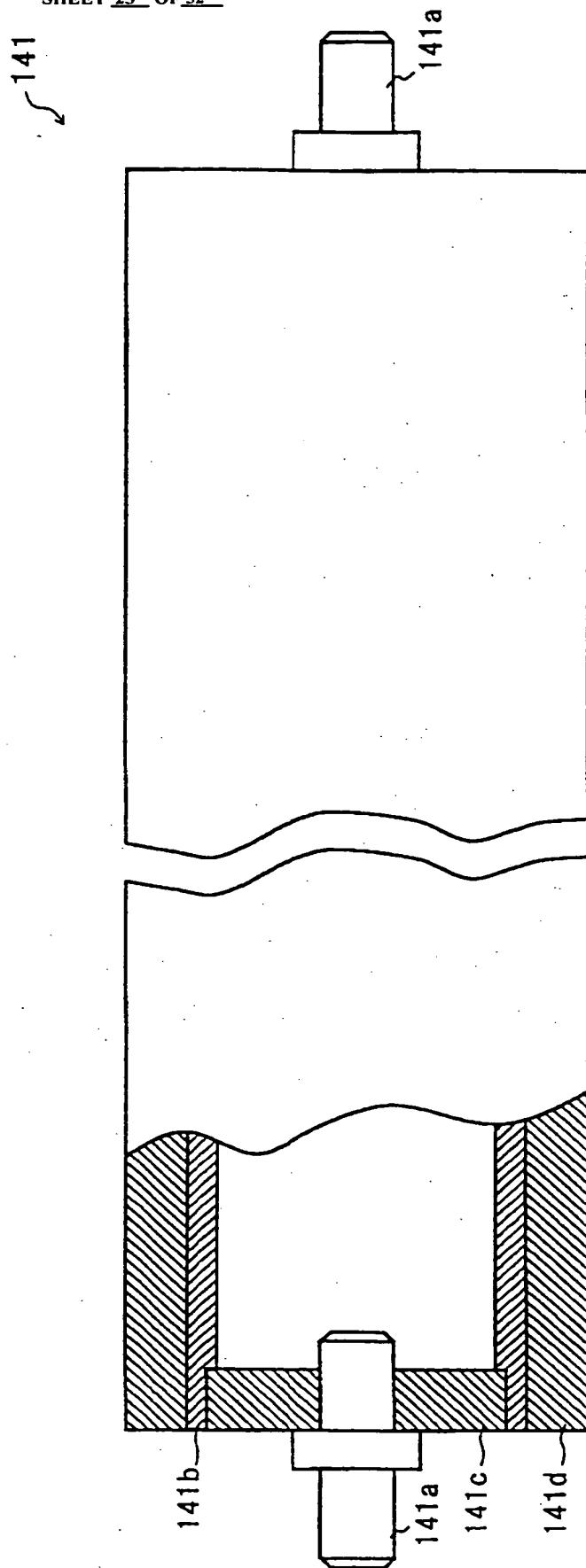


FIG. 25

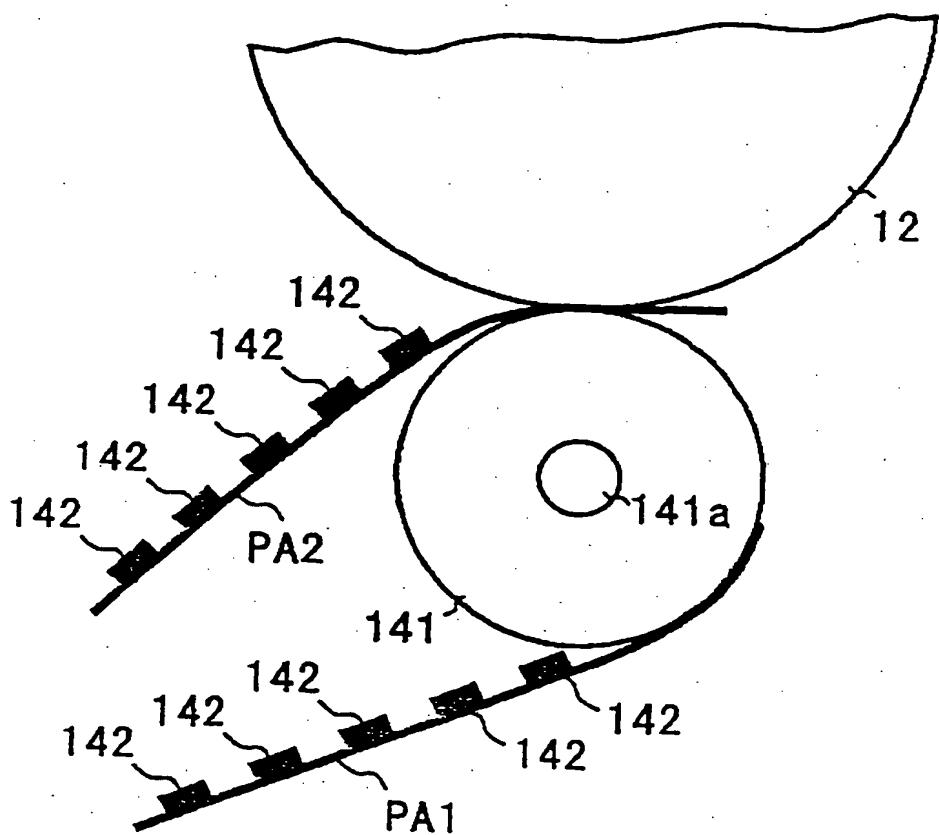


FIG. 26

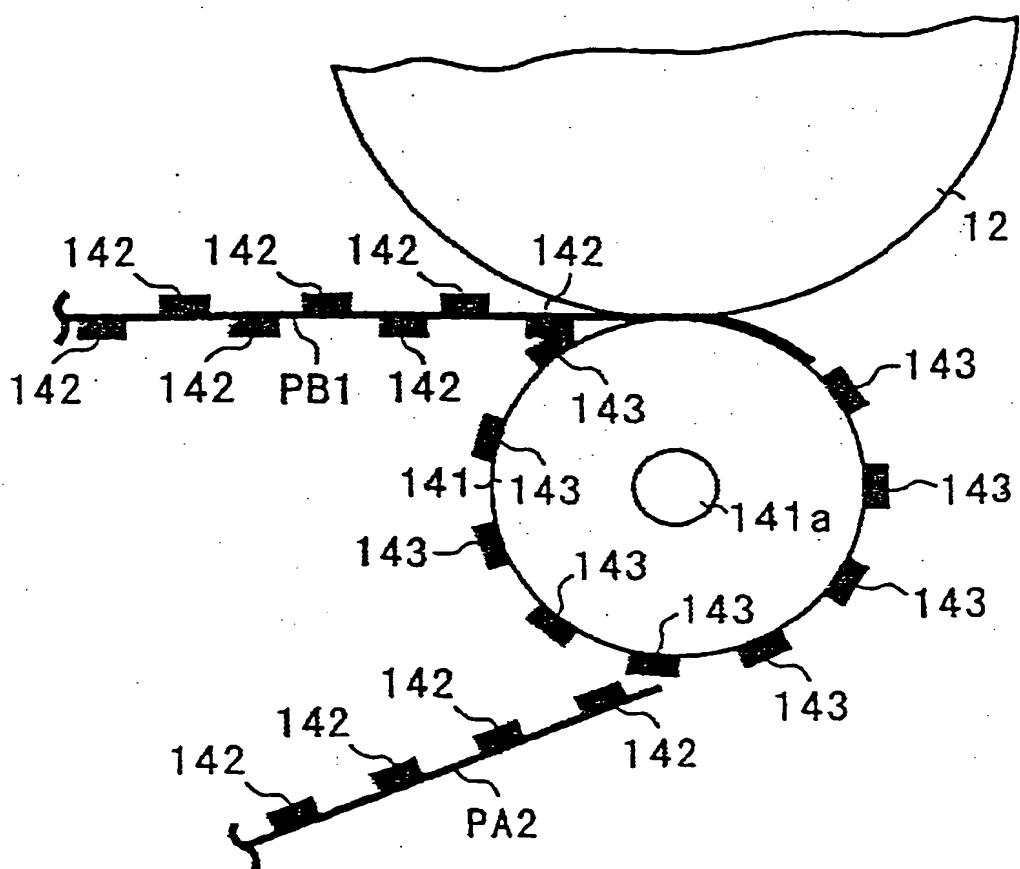


FIG. 27

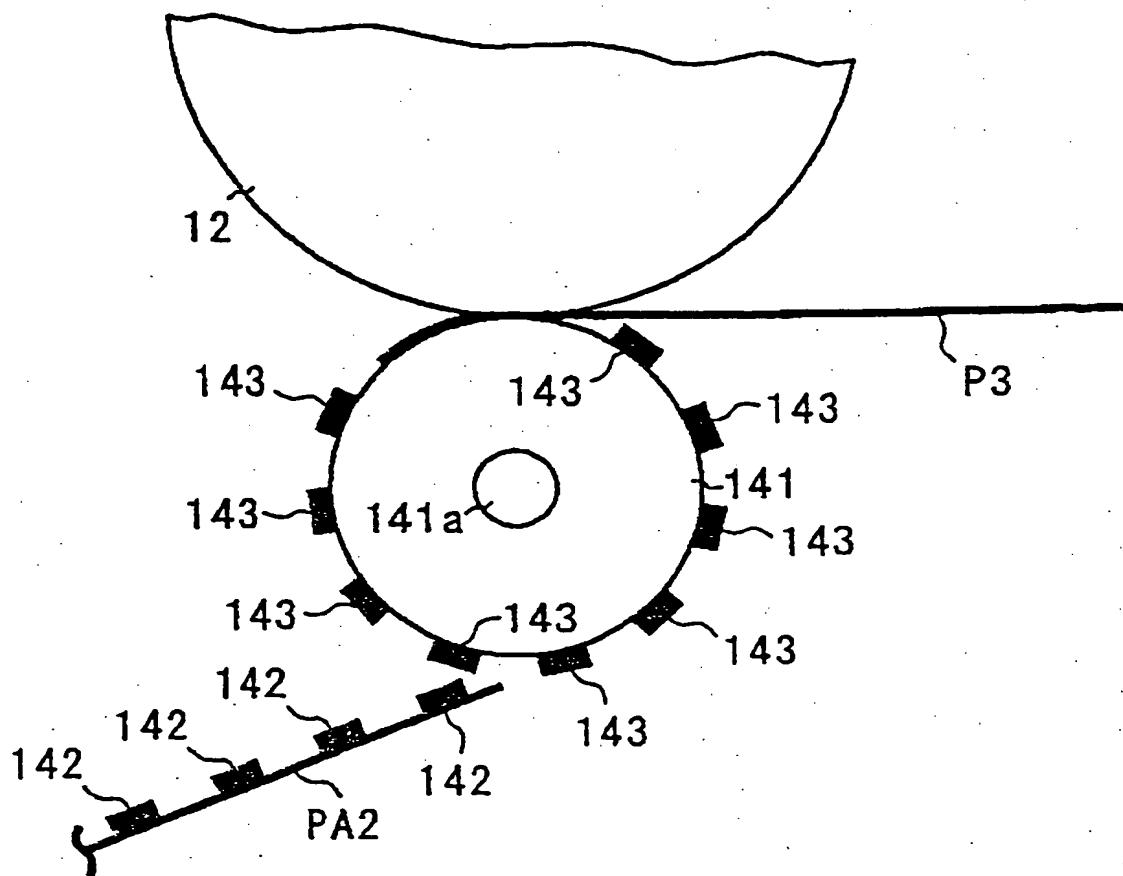


FIG. 28

	PEAK RADIUS	PEAK ANGLE	PITCH	SHEARING	IMAGE QUALITY
A	0. 05	90	0. 30	X	◎
B	0. 03	120	0. 30	X	◎
C	0. 03	90	0. 50	◎	X
D	0. 04	100	0. 40	○	○
E	0. 03	90	0. 30	◎	◎
F	0. 00	90	0. 30	◎	◎
G	0. 03	70	0. 30	◎	◎
H	0. 03	90	0. 10	◎	◎
I	0. 03	60	0. 30	◎	◎
J	0. 03	90	0. 05	X	◎

ESTIMATE RESULT SHEARING X: CONSPICUOUS O: NOT CONSPICUOUS @ ALMOST NONE
IMAGE QUALITY X: NO GOOD O: ACCEPTABLE @ GOOD

FIG. 29

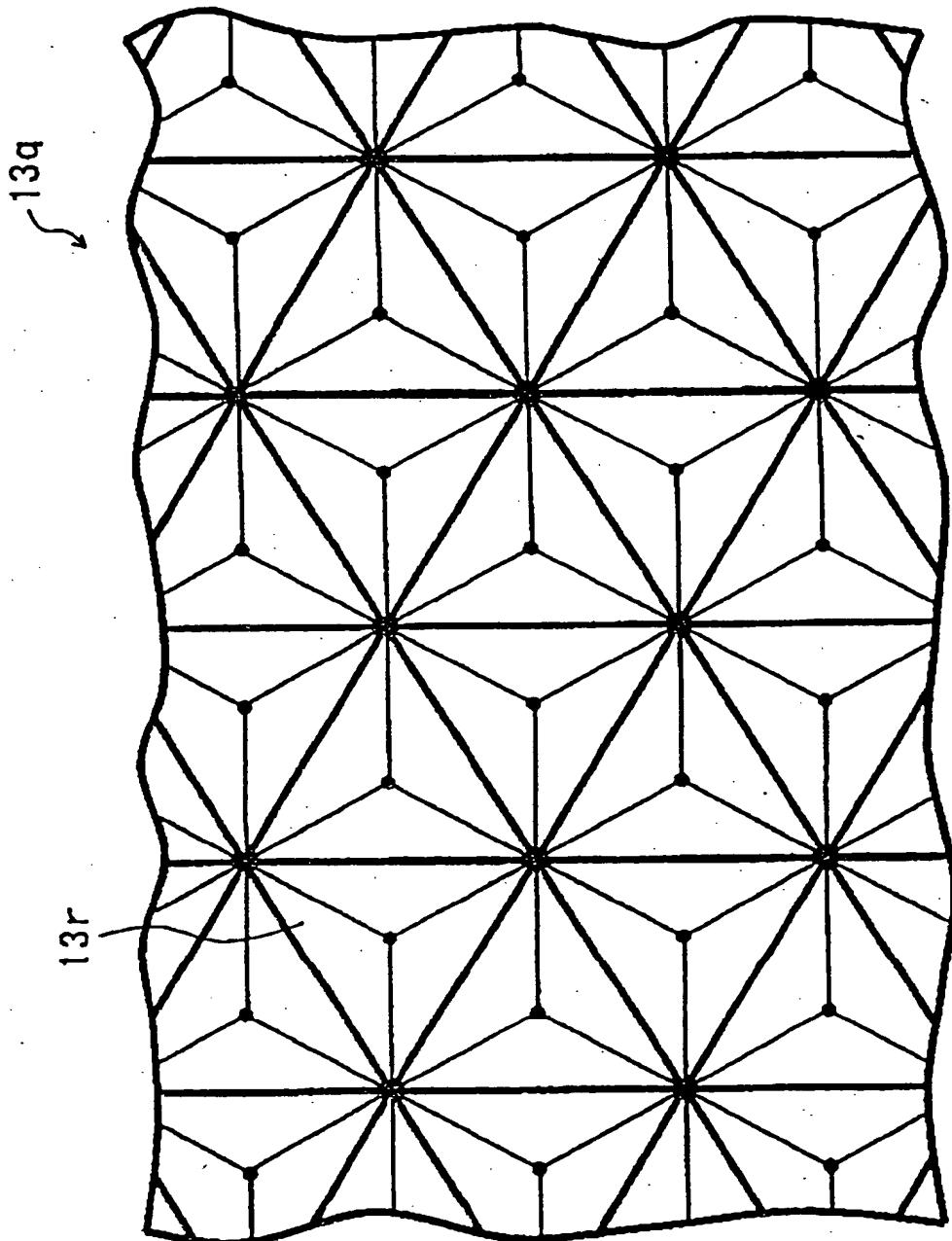


FIG. 30

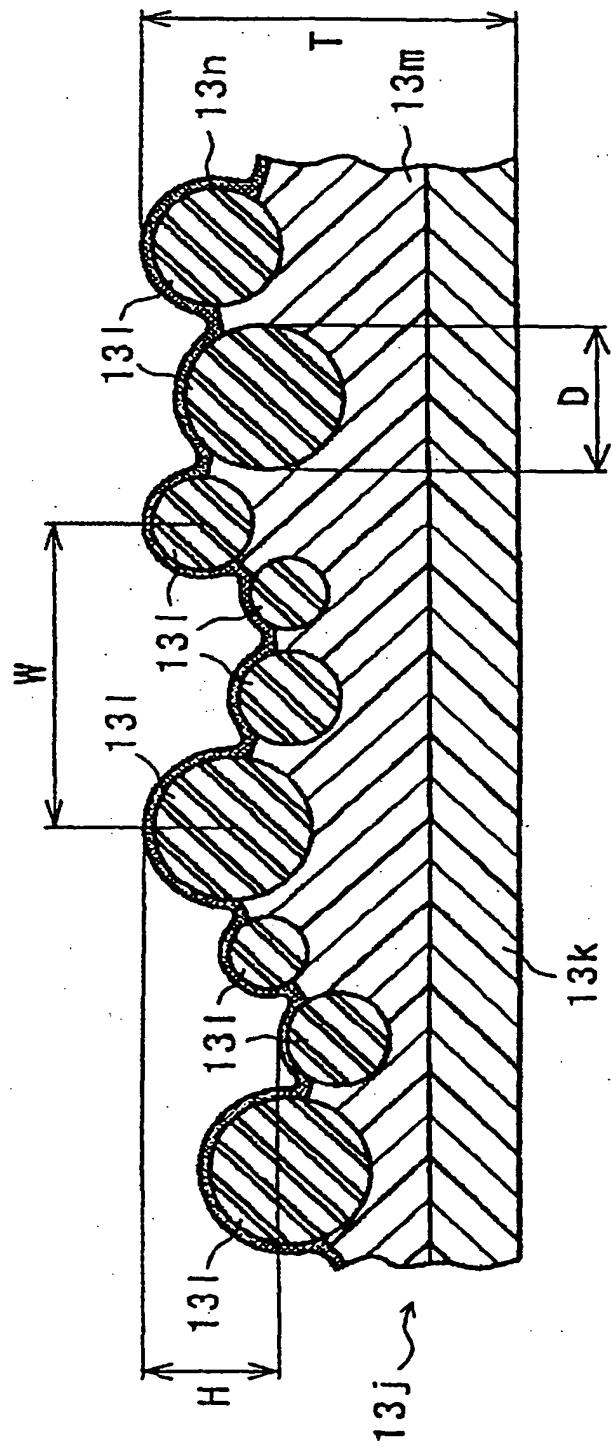


FIG. 31

	MEAN DIAMETER	MAX. DIFFERENCE	MEAN PITCH	SHEARING	IMAGE QUALITY
A	0. 12	0. 05	0. 40	X	◎
B	0. 06	0. 12	0. 40	◎	X
C	0. 06	0. 05	0. 50	◎	X
D	0. 10	0. 03	0. 15	○	○
E	0. 08	0. 05	0. 40	○	○
F	0. 04	0. 05	0. 40	○	○
G	0. 08	0. 10	0. 40	○	○
H	0. 08	0. 05	0. 30	○	○
I	0. 03	0. 05	0. 40	○	○
J	0. 08	0. 02	0. 40	X	○
K	0. 08	0. 05	0. 10	X	○

ESTIMATION RESULT SHEARING X: CONSPICUOUS O: NOT CONSPICUOUS
 IMAGE QUALITY X: NO GOOD O: ACCEPTABLE ◎: GOOD

① Almost None

FIG. 32

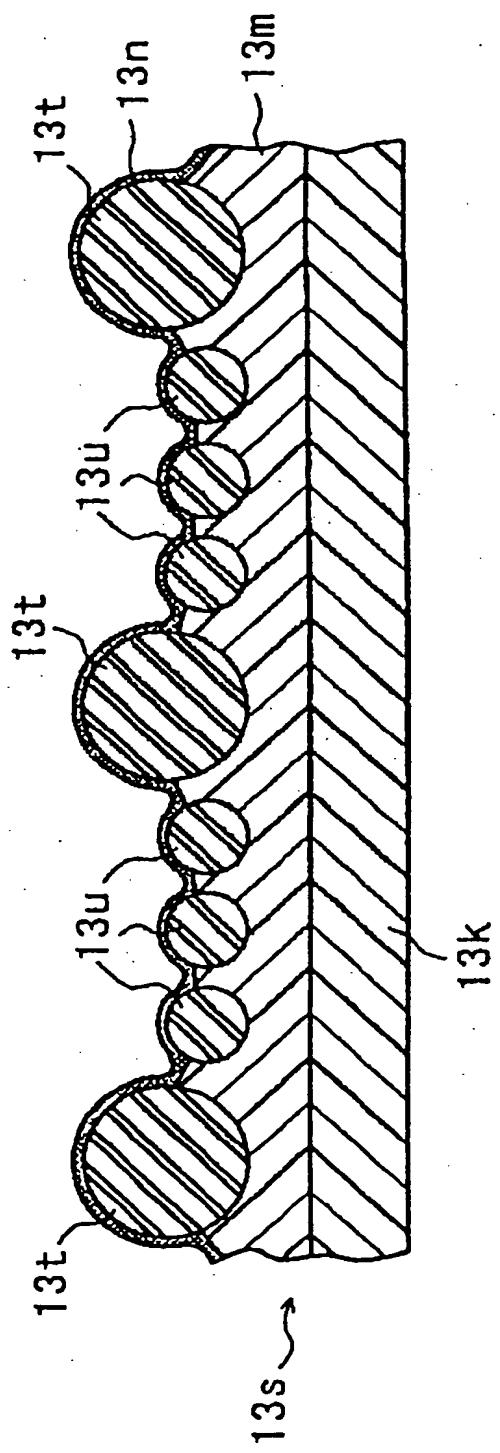


FIG. 33

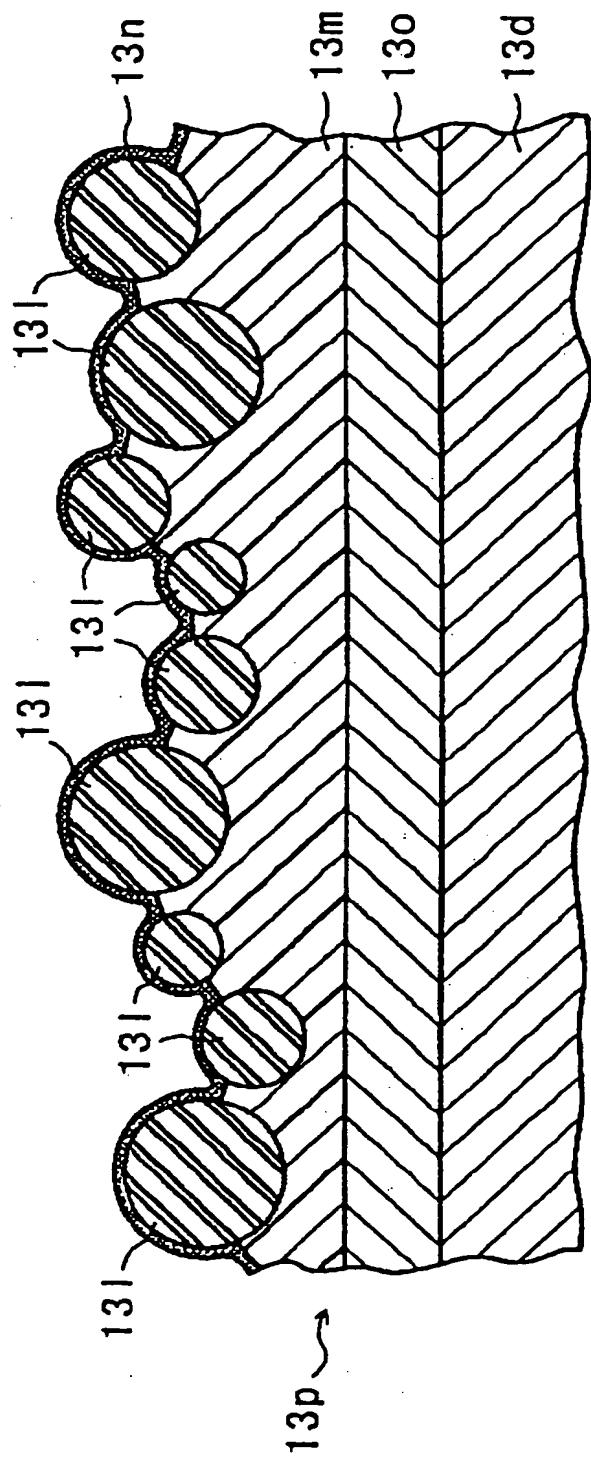


FIG. 34

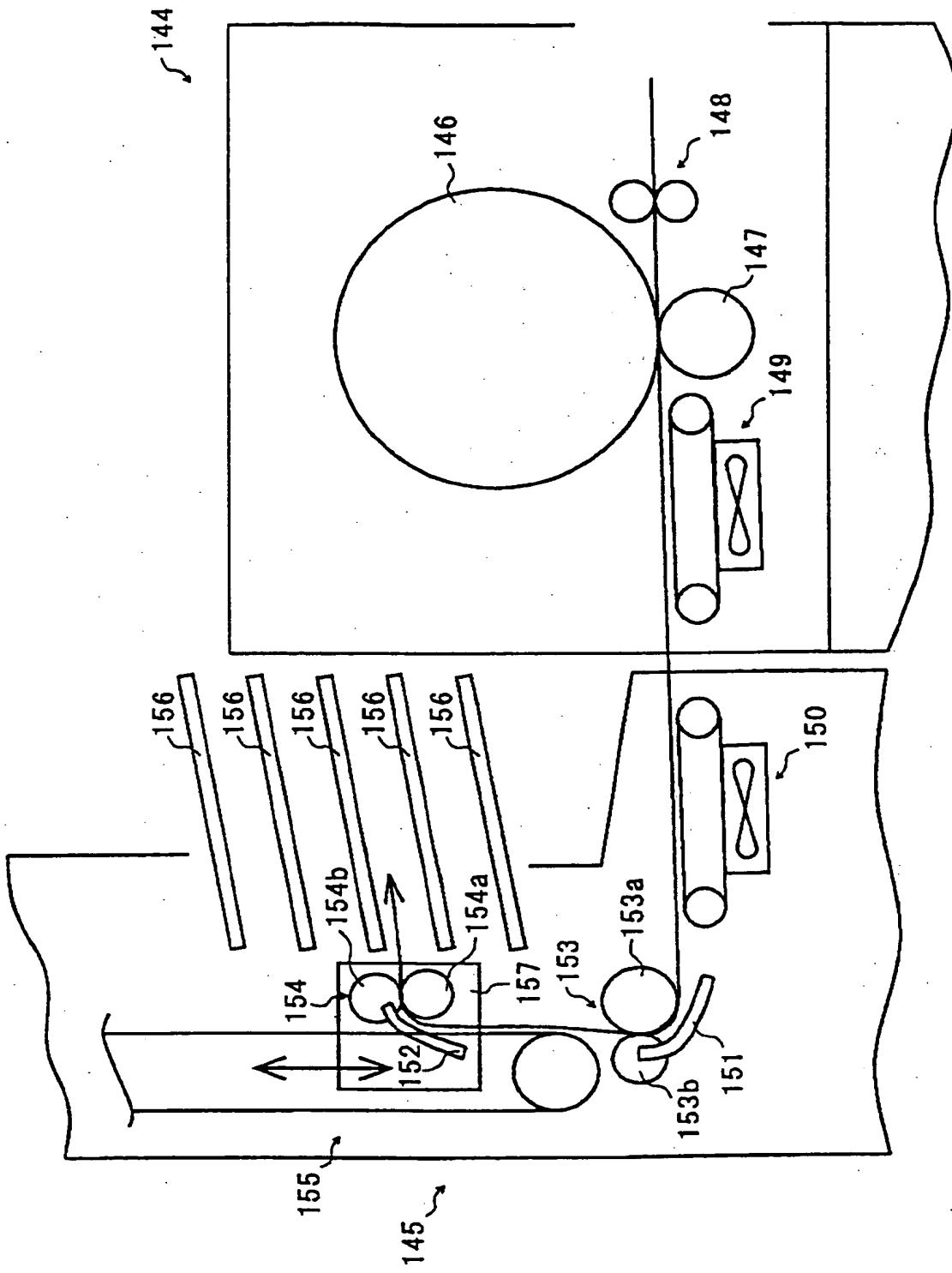


FIG. 35

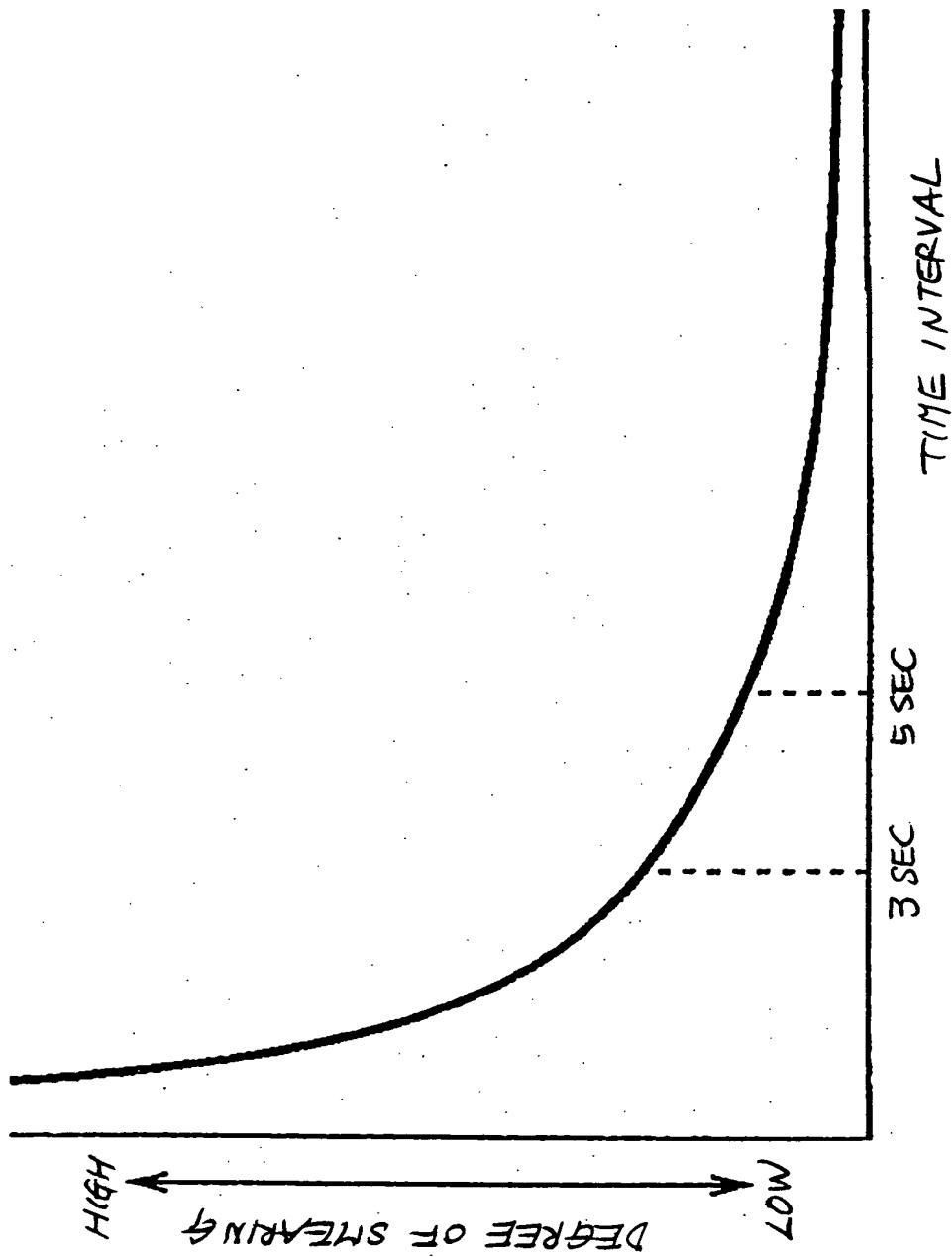


FIG. 36

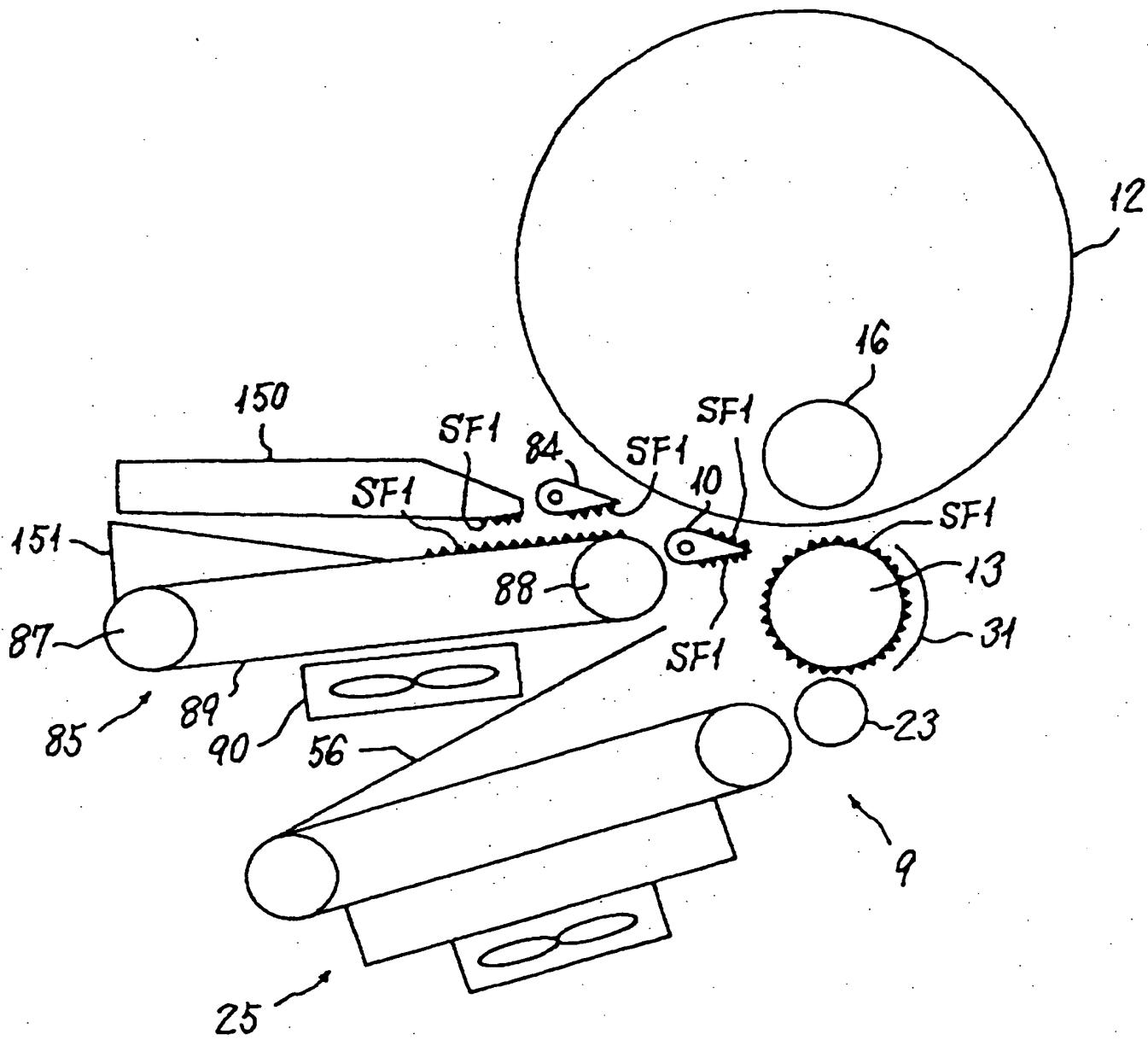


FIG. 37

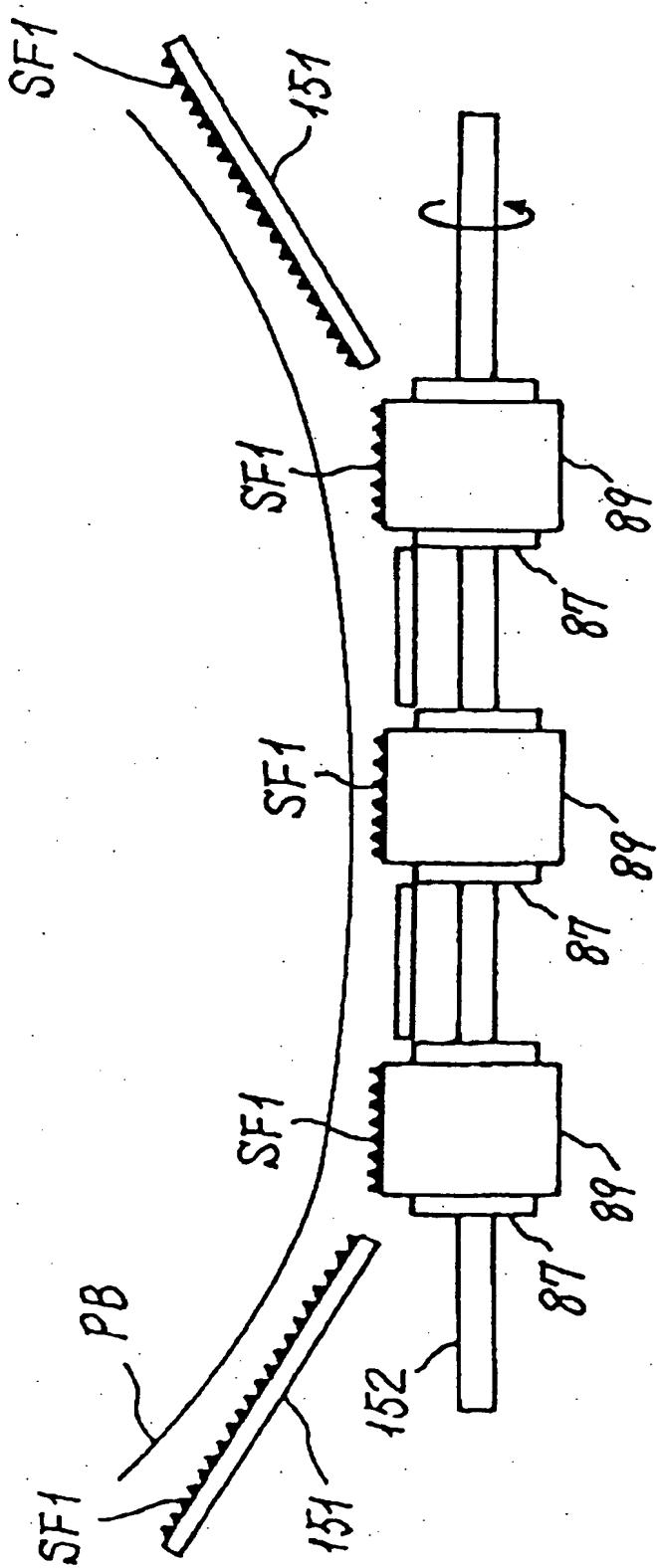


FIG. 38

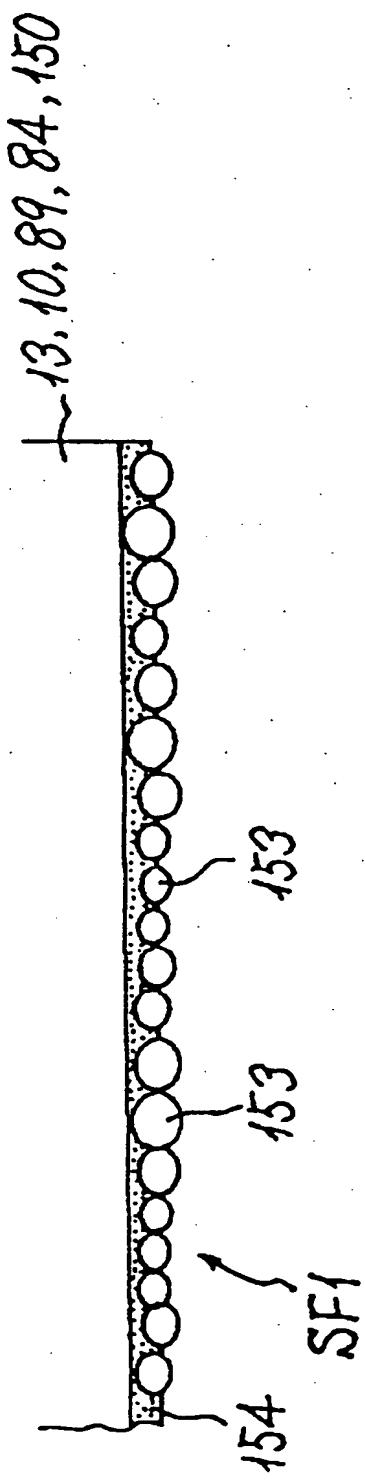


FIG. 41

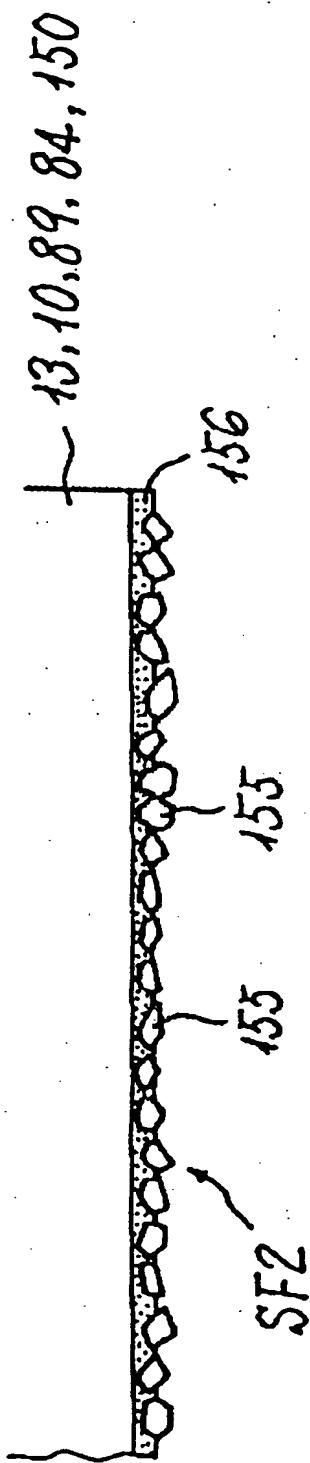


FIG. 39

BEAM DIAMETER (μm)	SMEARING RANK	NOTE
10	3.25(X)	SMEARING
20	4.50(O)	Good
50	4.50(O)	Good
100	4.25(O)	Good
150	4.00(O)	Good
200	3.75(X)	SPOTS
250	3.50(X)	SPOTS

* RANK 4.00 AND ABOVE ARE OK.

* GLASS BEADS ARE USED

FIG. 40

MATERIAL	SHREAVING RANK	DURABILITY	NOTE
GLASS	4.50(O)	O	SOME PAPER DUST
CERAMIC	4.50(O)	O	SOME PAPER DUST
RUBBER A	3.50(X)	Δ	CRUSH & WEAR
RUBBER B	4.25(O)	X	CRUSH/WEAR/FALL
RESIN	4.50(O)	X	WEAR/FALL

X BEAD DIAMETER OF 50 μm

FIG. 42

GRAIN SIZE	SMEARING RANK	NOTE
100	3.25(X)	SPOTS/BREAKAGE OF THIN SHEET
250	4.50(O)	GOOD
500	4.50(O)	GOOD
1000	4.25(O)	GOOD
1500	4.00(O)	GOOD
2000	3.75(X)	RUBBING
2500	3.50(X)	RUBBING

FIG. 43

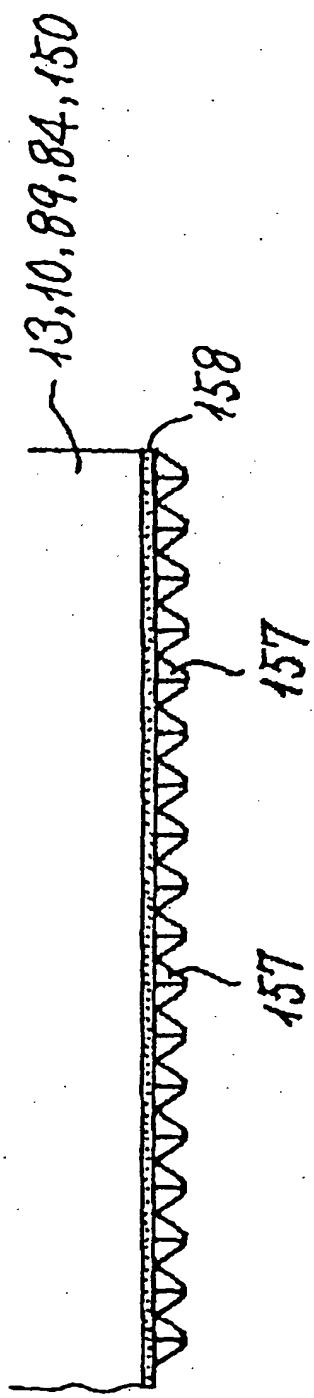


FIG. 44

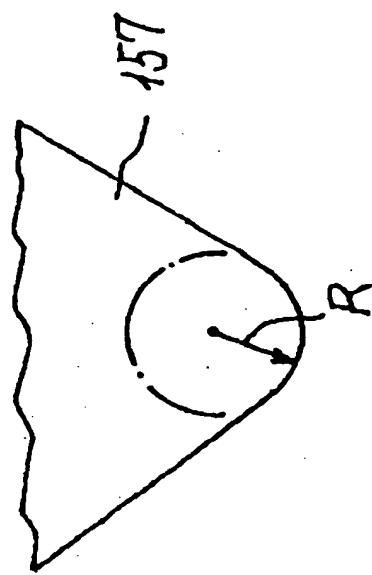


FIG. 45

PITCH (μm)	PEAK RADIUS R (μm)			NOTE
	25	50	100	
10	Δ	\times	\times	RUBBING
20	\circ	\circ	\times	100 [μm], RUBBING
50	\circ	\circ	\times	100 [μm], RUBBING
100	\circ	\circ	\times	100 [μm], RUBBING
200	\circ	\circ	Δ	100 [μm], RUBBING
300	\circ	\circ	Δ	100 [μm], RUBBING & SPOTS
500	\times	Δ	Δ	100 [μm], RUBBING & SPOTS
1000	\times	\times	Δ	RUBBING & SPOTS

FIG. 46

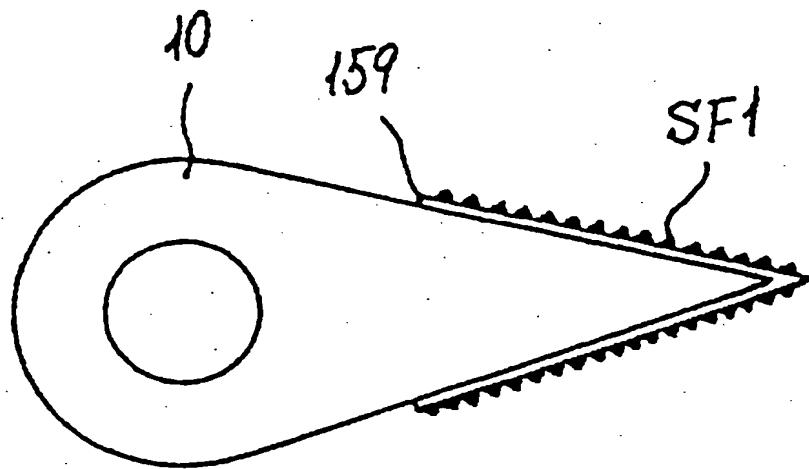


FIG. 47

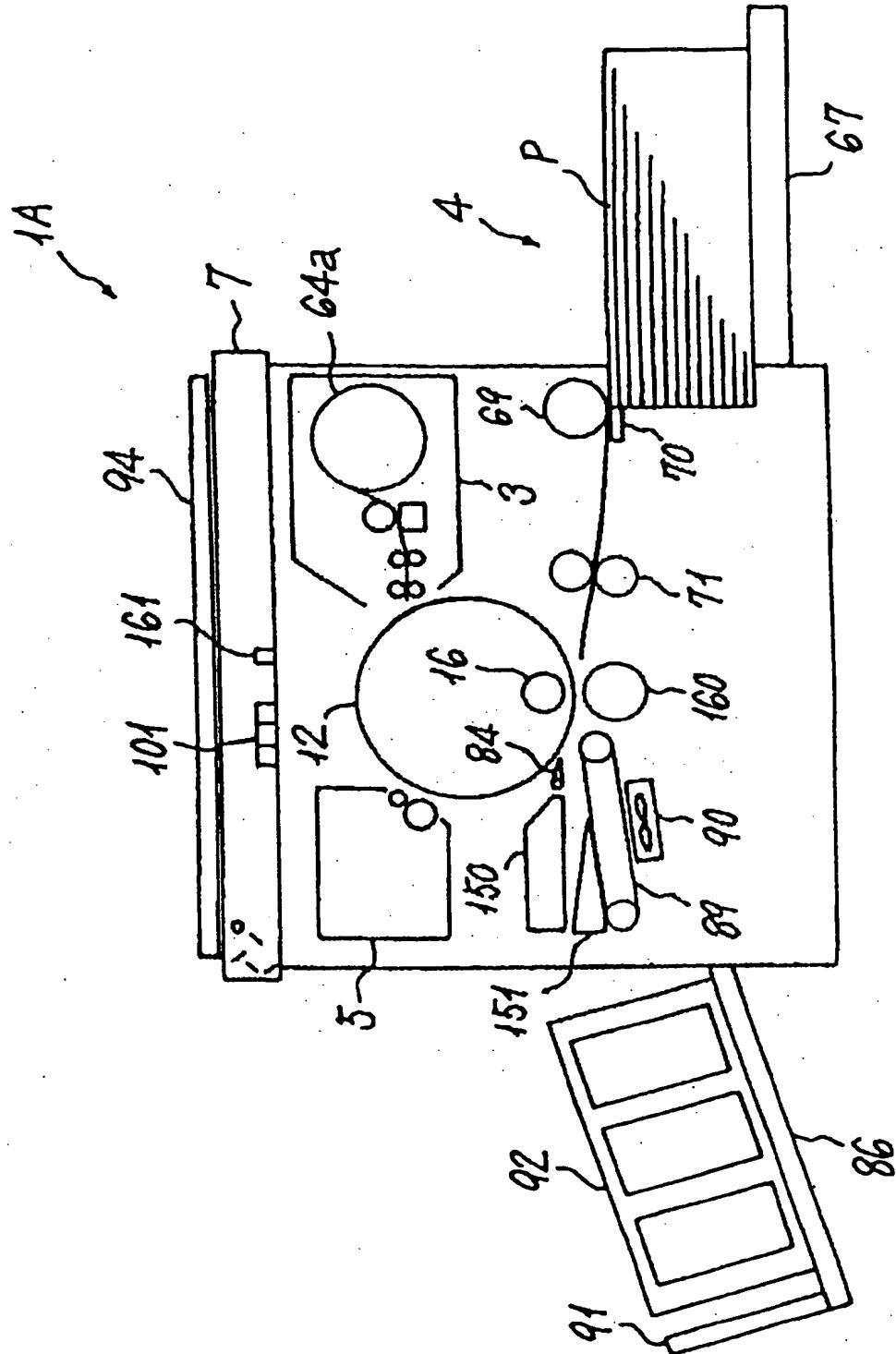


FIG. 48

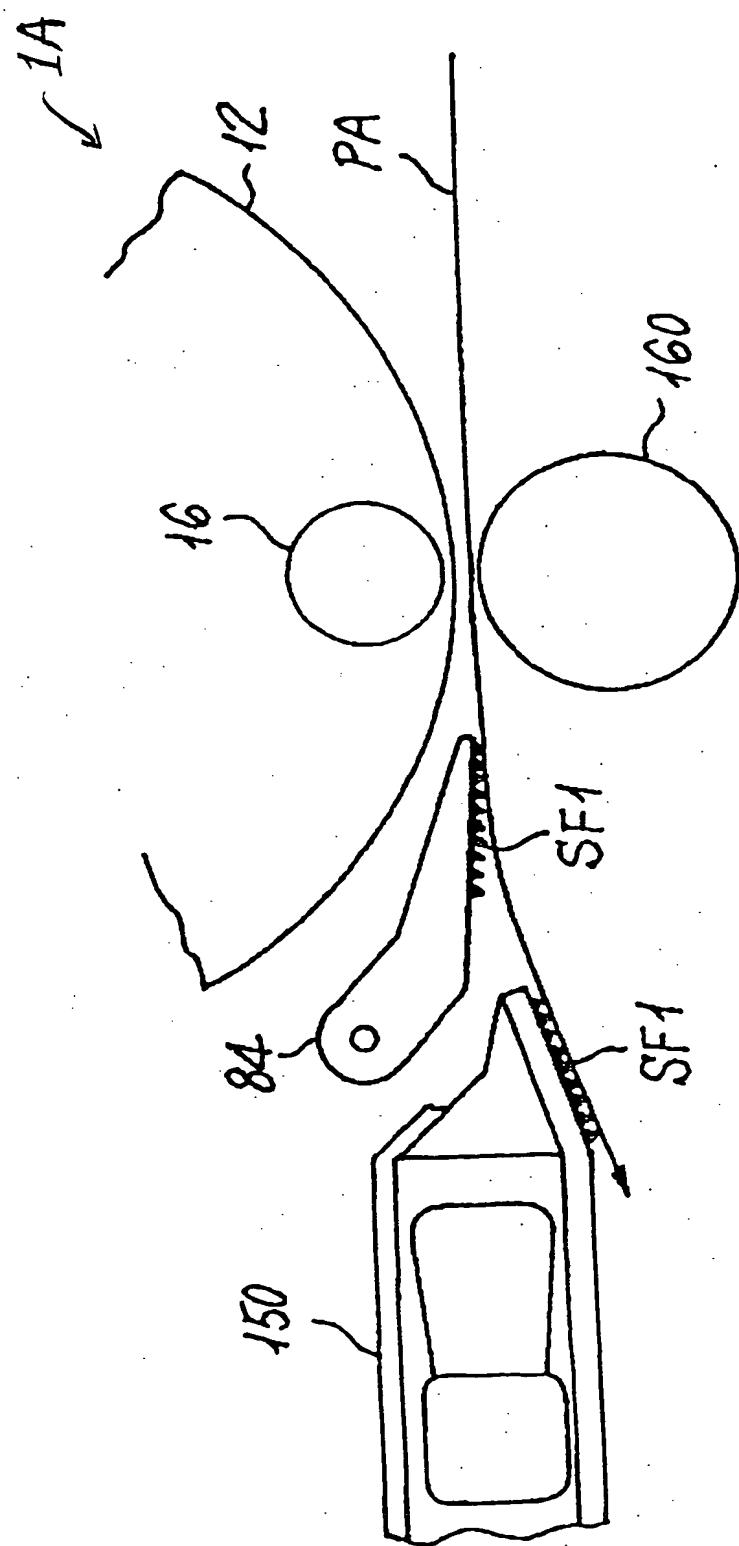


FIG. 49

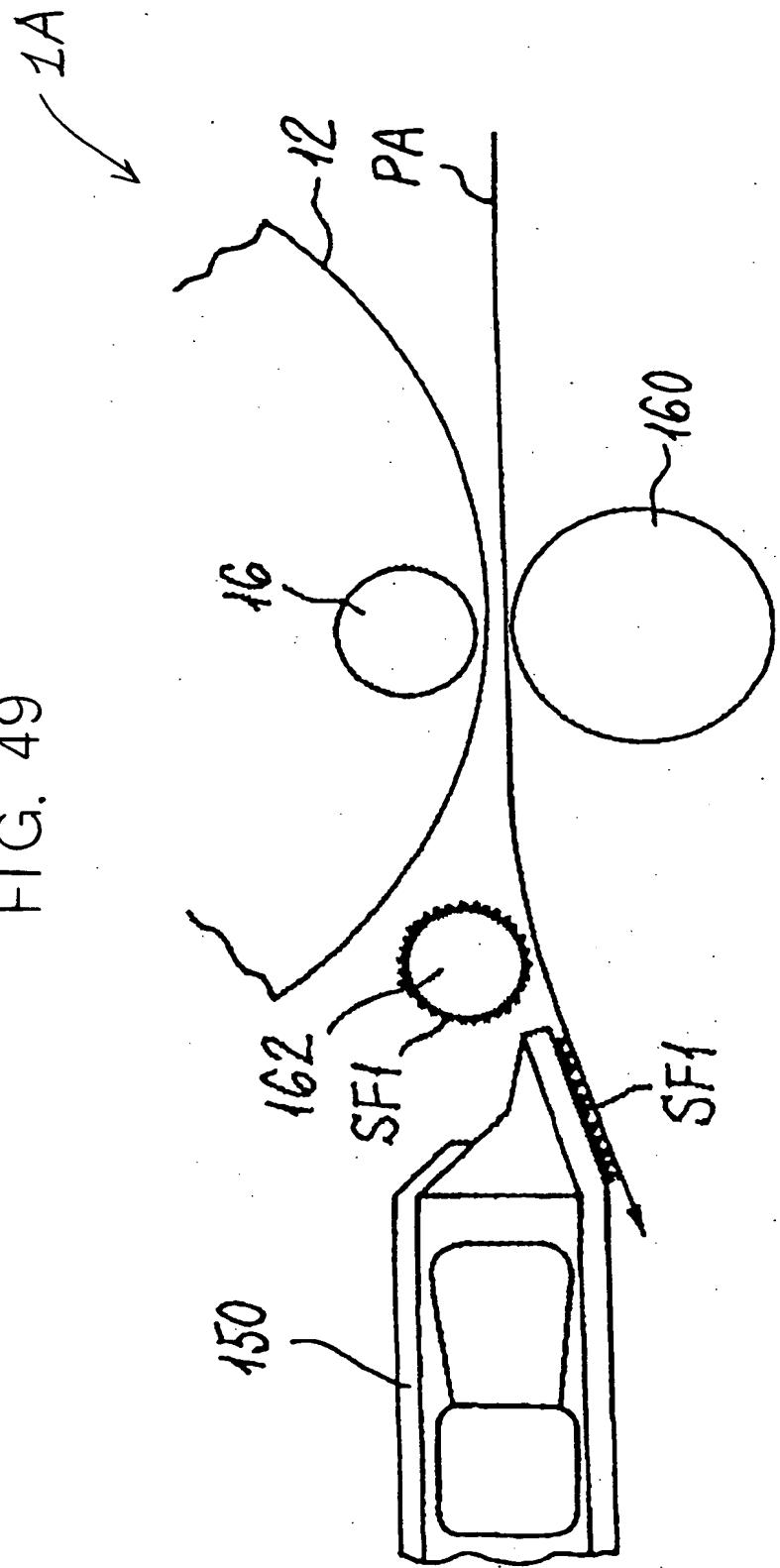


FIG. 50

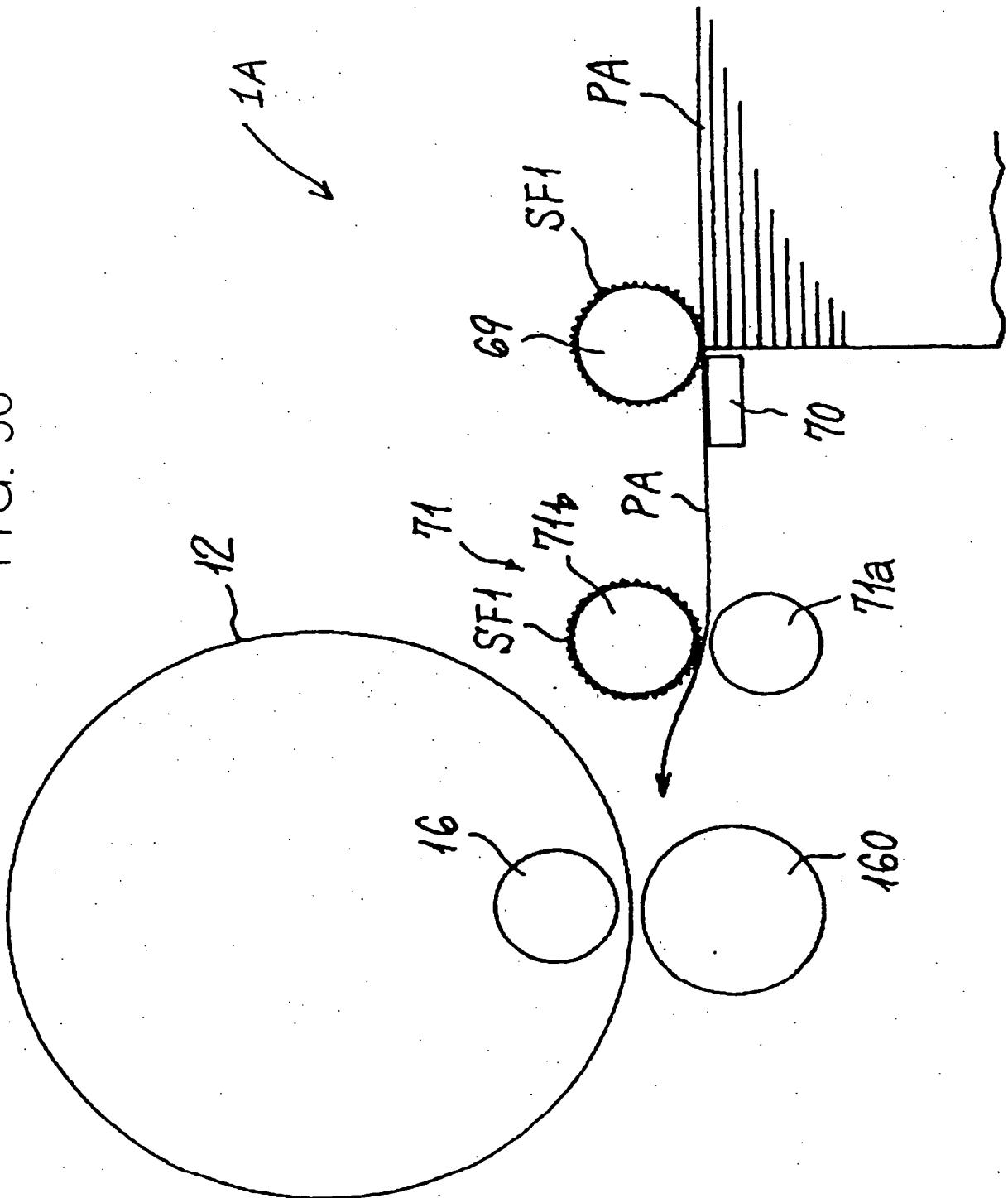


FIG. 51

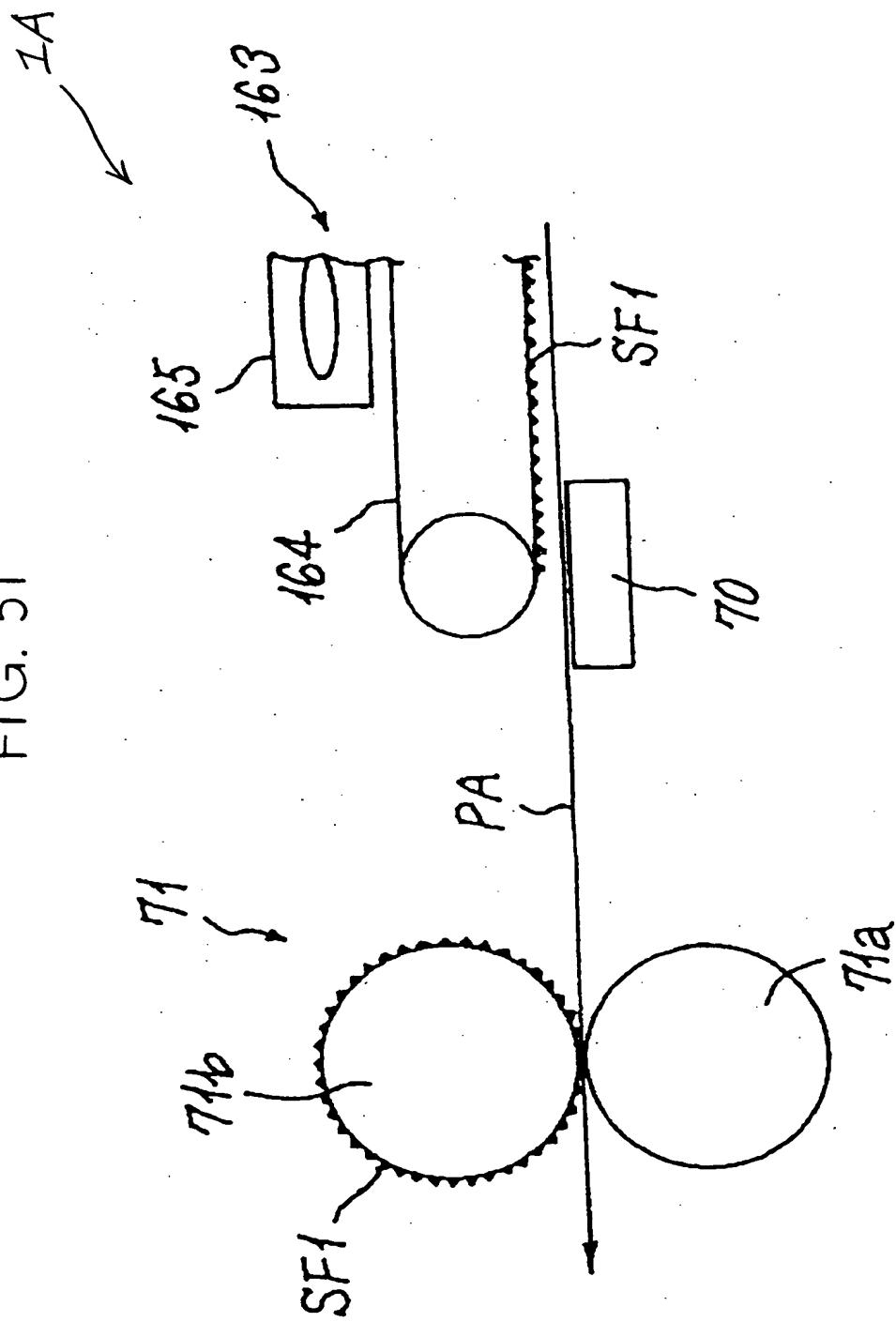


FIG. 52

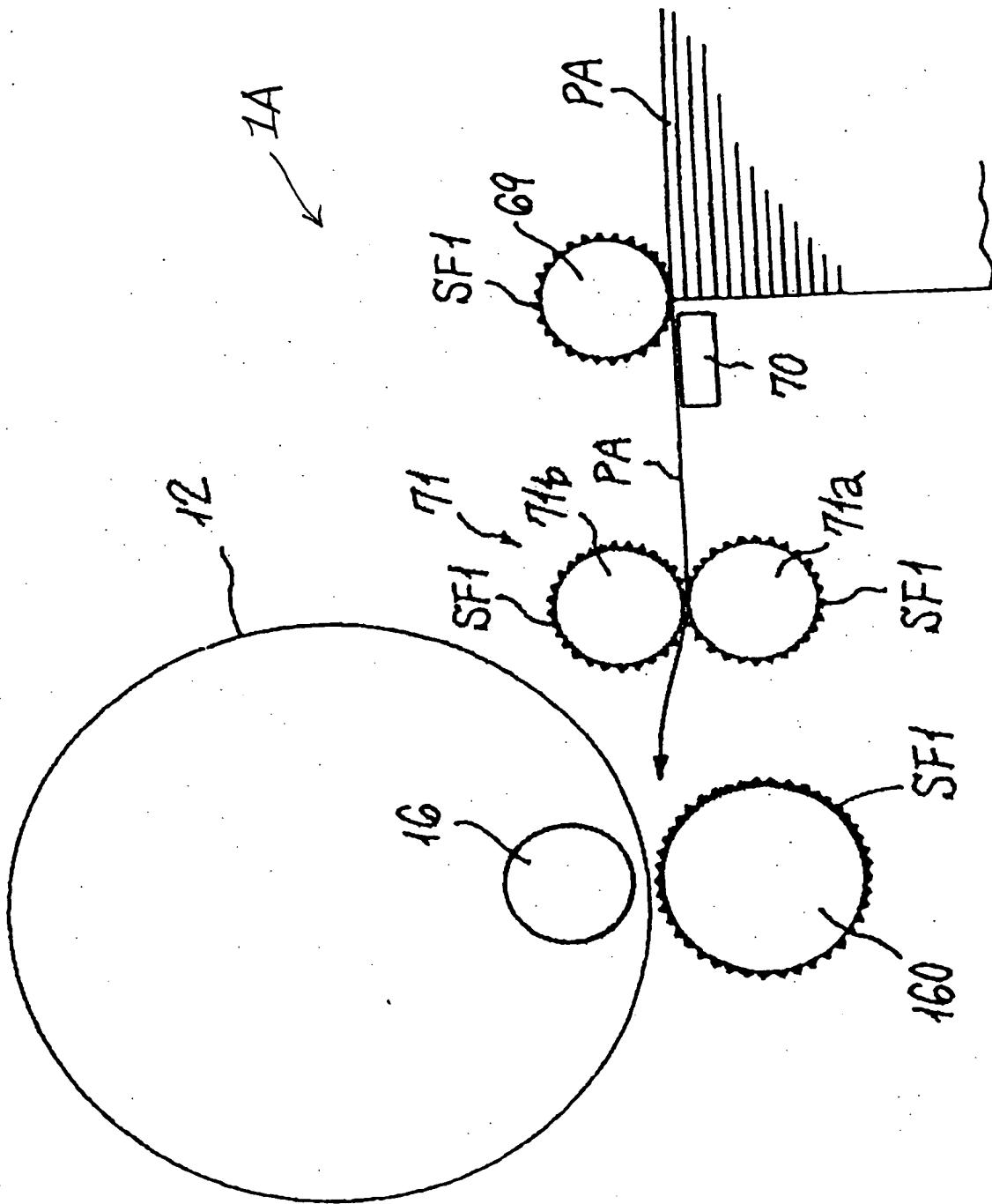


FIG. 53

18

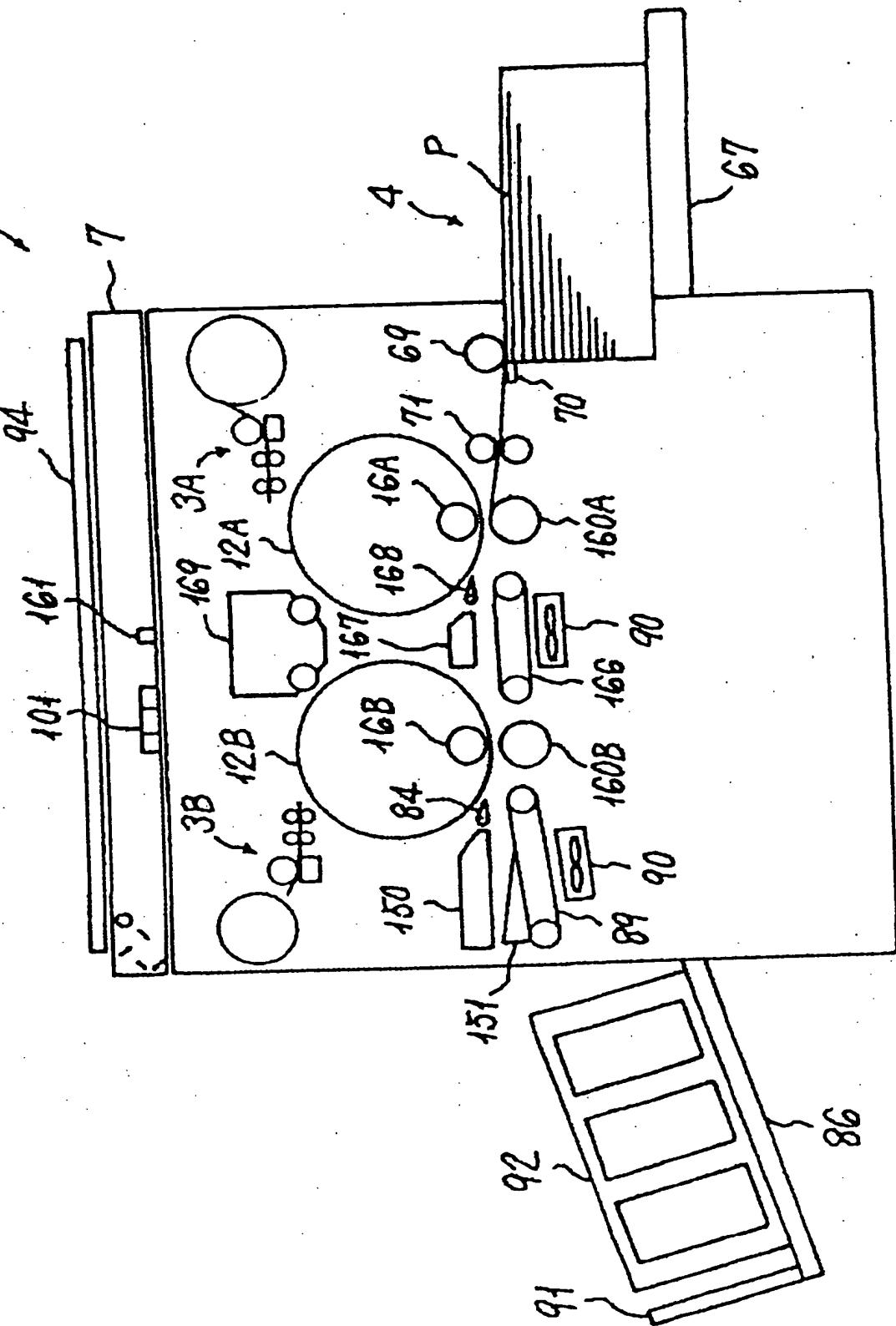


FIG. 54

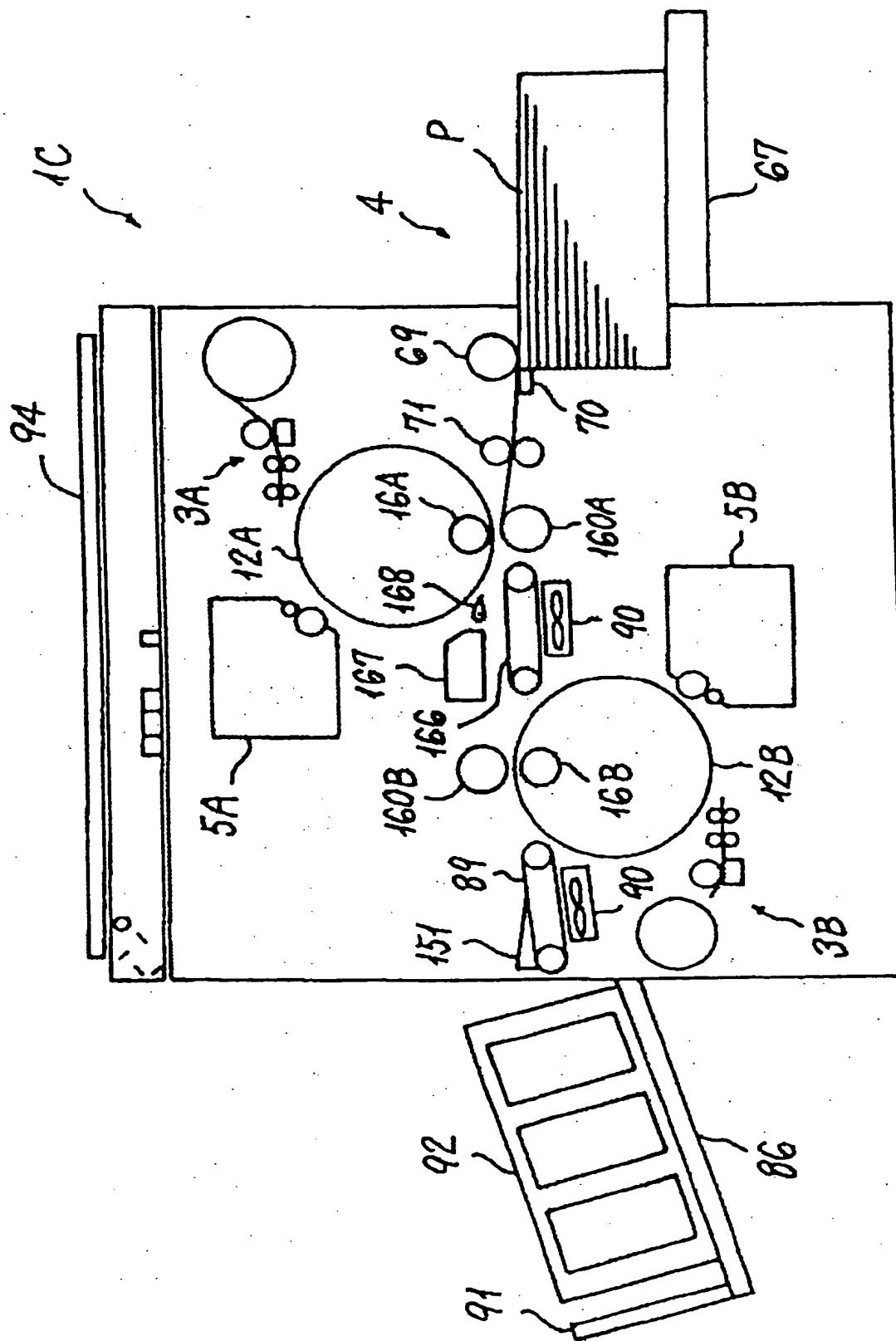


FIG. 55

